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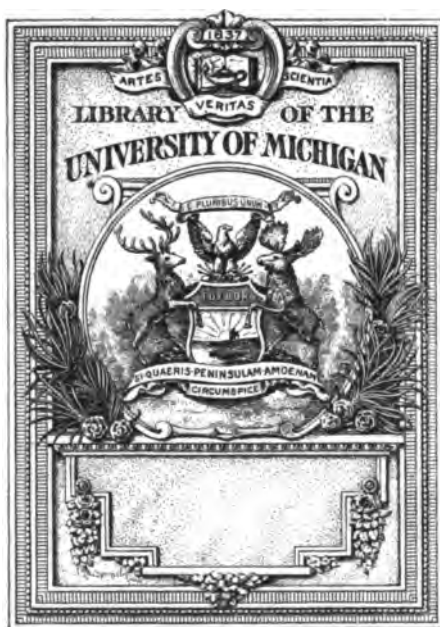
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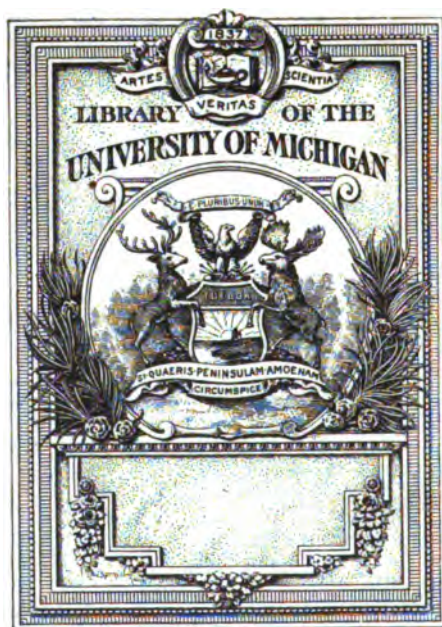
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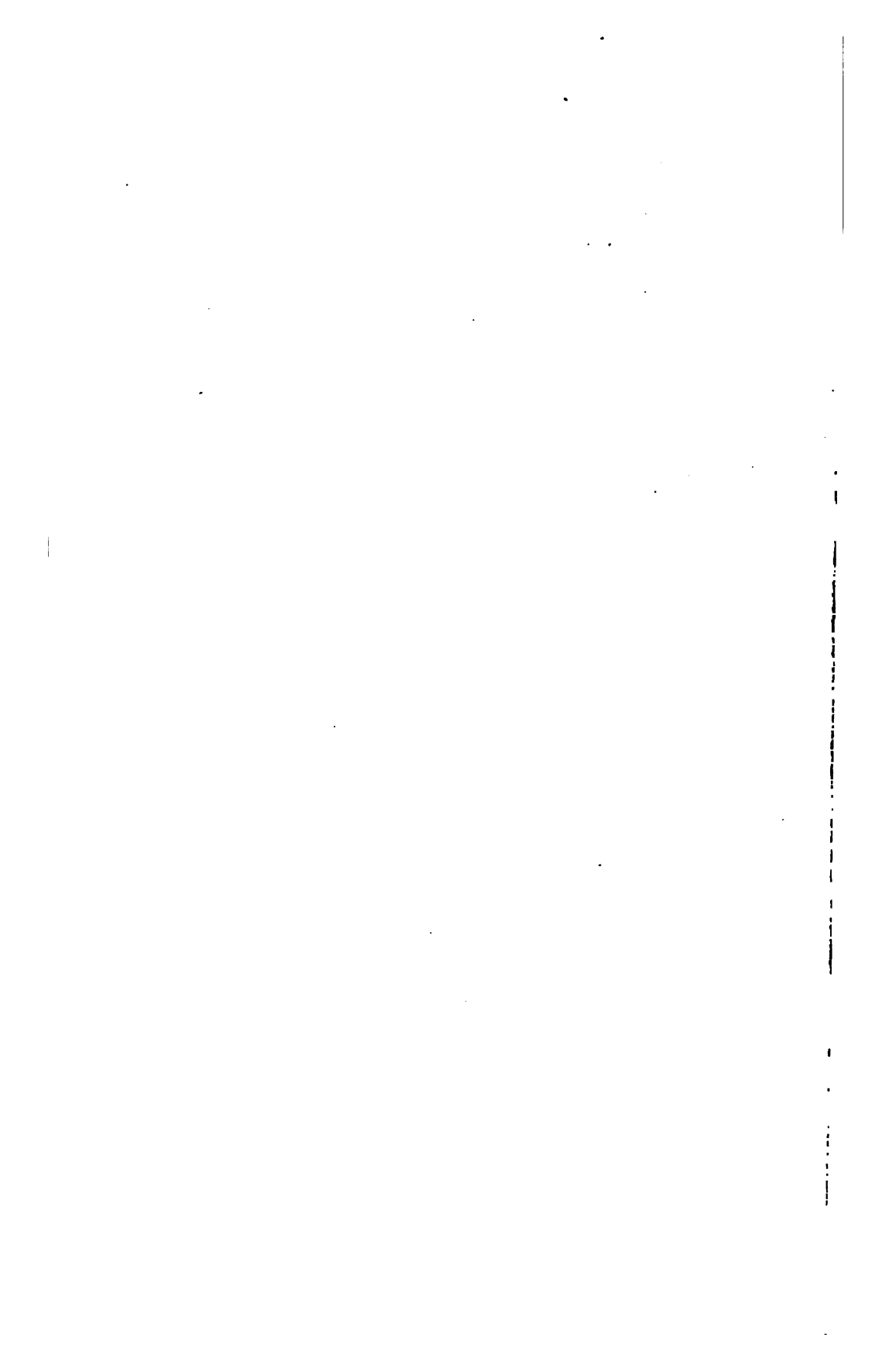
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REPORTS

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FROM THE

CONSULS OF THE UNITED STATES.

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OCTOBER-DECEMBER, 1887.



WASHINGTON:
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1887.

UNITED STATES CONSULAR REPORTS.

No. 85.—October, 1887.

ABSTRACT

OF THE

FOREIGN COMMERCE

OF

EUROPE, AUSTRALASIA, ASIA, AND AFRICA,

1873-1885.

**PREPARED FROM OFFICIAL RETURNS, AND REDUCED TO
AMERICAN MONEY, WEIGHTS, AND MEASURES.**

**WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1887.**

LETTER OF TRANSMITTAL.

DEPARTMENT OF STATE,
Washington, February 24, 1887.

SIR: I have the honor to submit a part of statistical abstract of the foreign commerce of the leading nations and countries of the world, other than the United States, during the thirteen years 1873-'85. The demands made upon this Department for such information have given evidence of the need of such a compilation, which it is proposed to continue from year to year as occasion may arise. As this is the first attempt to issue an abstract of this nature in so great detail, errors will doubtless be found. Where the official publications of the respective governments were accessible they have been used; reports by the consular officers of the United States have supplemented those publications so far as was possible, but the delay in issuing official figures has prevented that completeness which would be desirable.

The labor of compiling these tables and reducing them to American weights, measures and money has fallen upon Mr. Michael Scanlan, of this Bureau, to whose accuracy and industry whatever praise they merit belong.

Respectfully,

WORTHINGTON C. FORD,
Chief Bureau of Statistics.

Hon. T. F. BAYARD,
Secretary of State.

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[For imports from and exports to the several countries, only the value thereof is given; for imports and exports by articles, from and to the several countries, quantities (where given in official returns) and value are given.]

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AUSTRIA-HUNGARY.

Quantities and value of principal articles

Articles.		1873.	1874.	1875.	1876.	1877.
Animals, horses excepted...	{ number..	1,051,194	982,586	1,043,235	1,174,871	1,133,220
	{ dollars..	9,280,480	7,790,485	13,058,841	16,256,971	16,963,094
Animals, horses.....	{ number..	10,833	7,692	7,860	10,614	5,949
	{ dollars..	867,138	264,147	822,176	1,001,724	675,356
Books, printed.....	{ pounds					5,699,980
	{ dollars					8,227,278
Coal.....	{ tons	1,963,830	1,790,830	1,792,670	1,733,270	1,650,000
	{ dollars	5,121,785	4,655,475	8,584,325	8,228,095	2,460,874
Coffee.....	{ pounds	75,486,180	71,688,980	69,784,220	71,944,840	74,475,720
	{ dollars	11,917,025	11,085,600	15,276,168	14,703,401	15,220,099
Cotton.....	{ pounds	97,625,220	108,279,820	118,519,060	130,520,720	130,271,020
	{ dollars	17,353,012	19,245,555	15,564,600	18,820,599	13,561,674
Cotton yarn.....	{ pounds	23,724,900	23,772,820	26,440,480	24,874,740	30,193,020
	{ dollars	7,691,261	8,056,490	10,220,733	7,432,072	8,058,846
Cotton manufactures.....	{ pounds			8,381,180	2,553,100	1,682,120
	{ dollars			4,123,572	2,492,661	1,568,999
Dye-stuffs.....	{ pounds	53,741,160	63,187,740	72,274,620	80,459,060	69,548,160
	{ dollars	4,435,194	5,059,360	5,712,423	5,730,791	4,783,116
Flax, hemp, and jute.....	{ pounds	65,920,360	80,217,090	70,675,660	58,487,000	73,653,140
	{ dollars	6,429,171	7,686,467	8,324,229	4,719,748	5,718,142
Grain.....	{ tons	686,400	826,900	222,000	318,200	581,700
	{ dollars	16,695,152	20,066,605	7,349,538	10,289,851	18,145,871
Hides and skins.....	{ pounds	15,294,400	15,069,560	16,886,980	18,691,860	21,483,660
	{ dollars	4,130,031	4,312,656	4,520,128	5,774,209	5,741,826
Iron, ore and pig.....	{ tons					
	{ dollars					
Leather and leather-ware.....	{ pounds	14,285,480	13,932,880	15,387,900	14,994,320	16,451,160
	{ dollars	7,554,419	7,193,305	7,966,140	7,069,058	6,752,541
Machinery.....	{ tons	69,319	22,555	22,232	16,499	23,233
	{ dollars	7,100,029	4,624,006	4,172,156	2,713,359	2,816,760
Oils, mineral.....	{ pounds					240,289,160
	{ dollars					7,040,448
Oils, olive and linseed.....	{ pounds					
	{ dollars					
Silk and floss silk.....	{ pounds	1,452,440	2,118,160	2,100,340	2,359,720	2,161,720
	{ dollars	5,306,784	5,252,906	4,861,434	6,067,152	5,220,435
Silk manufactures.....	{ pounds	913,880	825,000	955,680	710,820	757,460
	{ dollars	14,806,070	13,480,094	7,164,387	5,990,456	6,160,058
Stone manufactures.....	{ tons					
	{ dollars					
Tobacco.....	{ pounds	42,590,780	64,083,800	54,028,620	32,882,000	30,235,260
	{ dollars	13,888,067	20,158,627	16,128,483	9,071,096	8,720,023
Wood manufactures.....	{ pounds					12,446,060
	{ dollars					1,577,173
Wool.....	{ pounds	23,628,440	34,537,140	28,017,000	32,004,940	40,588,700
	{ dollars	6,723,834	9,850,211	10,997,212	11,217,363	14,786,768
Woolen yarns.....	{ pounds	6,167,260	7,493,920	7,493,640	6,081,240	7,534,780
	{ dollars	5,547,568	6,836,358	6,167,193	4,045,273	4,610,090
Woolen goods.....	{ pounds	8,171,460	7,317,860	9,142,542	7,746,640	5,810,640
	{ dollars	10,146,781	8,900,902	11,683,518	8,984,452	6,475,498
All other articles.....	{ dollars	120,629,192	106,671,784	82,731,154	77,743,463	58,271,112
TOTAL IMPORTS.....	{ dollars	278,013,498	271,170,979	240,428,610	218,357,794	218,761,579

AUSTRIA-HUNGARY.

imported and entered for home consumption.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
690,202	591,812	889,055	516,268	730,537	982,845	609,328	450,318
10,104,823	7,968,116	4,424,184	7,188,227	6,537,991	8,864,880	5,976,368	5,781,119
6,808	10,097	7,727	9,082	10,245	6,603	6,182	4,895
768,103	1,118,325	852,019	1,050,874	1,218,812	751,073	813,910	688,797
5,700,420	6,007,320	5,966,620	6,815,540	6,528,060	6,690,640	6,772,920	7,144,046
3,192,588	3,692,286	3,769,451	3,974,900	4,072,180	4,086,992	3,881,296	4,044,721
1,832,190	2,454,680	2,424,620	2,362,910	2,361,040	2,605,020	2,726,020	2,861,890
2,157,259	3,267,852	3,725,564	3,581,600	4,848,994	4,187,518	4,686,450	4,683,774
87,788,800	42,479,140	69,501,520	85,345,700	83,208,840	74,035,000	78,051,380	81,083,417
15,278,138	7,003,334	11,481,818	12,616,186	12,696,026	11,193,915	10,449,092	10,249,047
133,812,300	163,493,340	153,217,900	175,416,340	170,876,200	228,616,520	208,698,880	192,482,152
13,757,942	16,482,072	17,649,068	17,992,656	17,876,992	21,842,824	20,017,410	18,581,322
32,521,720	24,676,520	25,357,640	25,107,280	25,245,140	31,547,780	28,554,000	20,759,696
8,621,782	6,584,214	8,217,461	6,875,044	7,674,212	7,853,184	7,353,448	5,268,050
2,255,220	2,179,540	2,818,420	3,127,960	3,017,080	8,449,080	4,308,040	3,822,971
1,955,356	2,054,897	2,744,798	3,000,640	3,045,512	3,396,470	4,011,238	2,906,232
85,193,690	73,480,420	71,140,080	67,696,940	79,773,100	80,678,840	79,625,920	75,561,936
4,942,892	6,213,857	4,790,864	5,750,050	6,165,110	5,083,903	5,583,318	4,960,839
73,008,100	79,426,580	71,691,040	84,815,880	94,414,540	98,576,720	100,756,480	93,171,896
4,775,953	5,598,078	5,171,586	5,765,969	5,919,480	6,157,355	6,828,884	6,573,818
538,300	573,500	584,900	717,800	729,000	581,000	610,300	717,732
15,307,149	14,967,420	26,943,294	21,001,029	20,991,012	14,828,000	14,678,598	15,688,580
20,232,520	25,110,480	43,876,140	85,957,480	37,194,520	36,825,560	41,054,420	37,708,072
5,102,388	9,545,458	9,162,405	9,045,982	8,621,038	8,643,154	8,237,406	8,017,986
43,297	50,385	61,089	88,874	110,714	145,081	102,109	53,764
549,000	571,051	917,273	1,283,271	1,638,175	2,009,812	1,182,060	621,628
21,844,460	20,002,580	16,016,020	18,480,220	19,217,220	18,945,480	12,981,324	11,973,891
8,283,262	9,815,468	6,041,528	8,765,966	9,197,524	7,152,058	6,676,052	6,504,543
21,899	23,771	28,416	35,830	44,942	41,197	62,981	30,247
3,346,109	3,787,394	4,500,048	5,619,856	8,014,846	6,801,361	6,822,118	4,657,816
240,746,220	205,160,560	255,918,000	324,832,860	275,461,780	242,569,800	294,932,440	309,896,672
7,047,664	8,333,213	4,234,902	4,959,492	4,284,580	3,899,725	4,257,406	3,716,850
37,392,960	37,996,200	24,313,080	29,614,400	29,558,960	49,348,800	36,073,840	28,288,560
3,213,522	2,890,316	2,858,230	2,362,635	2,256,142	3,644,689	2,697,644	2,094,561
2,457,180	2,796,100	2,921,820	3,191,160	2,964,600	3,188,300	3,054,480	2,712,022
5,657,717	6,639,022	6,442,800	7,794,050	7,535,360	7,400,856	7,069,326	5,828,474
967,340	693,880	769,340	884,900	755,480	739,200	723,660	694,752
7,029,126	6,157,840	6,606,795	7,558,397	6,943,600	6,055,501	5,851,794	5,065,162
-----	84,540	40,062	44,066	61,093	59,034	59,976	31,788
-----	2,256,397	2,296,912	3,081,804	3,929,674	3,065,140	4,303,176	4,847,756
34,188,000	27,306,860	33,962,000	28,051,540	29,461,960	28,672,820	31,612,680	34,123,430
8,830,939	8,853,910	11,440,926	9,718,753	9,672,262	6,832,639	11,326,682	13,089,132
14,089,080	28,884,680	35,031,260	31,720,044	33,141,900	20,331,300	19,794,280	19,496,564
1,691,794	2,461,524	2,743,569	2,639,639	2,895,588	1,781,919	1,701,848	1,588,069
42,441,080	42,449,000	41,685,160	46,396,440	30,486,700	58,968,320	56,268,320	48,432,100
13,042,289	14,008,683	14,840,742	16,853,667	15,778,878	14,867,075	15,336,960	10,460,874
7,842,120	8,469,340	8,068,080	8,527,890	9,245,280	9,315,460	11,026,000	10,467,457
4,523,675	5,460,069	5,654,796	5,356,620	6,066,858	5,224,629	5,170,766	4,831,313
8,218,760	6,998,420	7,288,660	7,513,440	7,689,720	6,677,440	6,193,560	4,905,223
8,112,792	7,890,387	8,690,759	8,714,277	9,074,100	7,724,463	5,854,183	5,423,798
65,206,955	57,628,194	77,567,771	78,902,324	79,476,898	77,712,780	73,077,522	68,737,817
222,496,703	216,289,822	253,359,393	261,230,915	265,694,644	250,580,890	243,833,264	219,373,564

AUSTRIA-HUNGARY—Continued.

Quantities and value of principal

Articles.		1873.	1874.	1875.	1876.	1877.
Animals, horses excepted...	{ number... dollars...	733, 229 9, 671, 597	424, 402 8, 082, 024	744, 250 18, 018, 998	1, 151, 547 85, 887, 118	1, 166, 862 34, 580, 548
Animals, horses	{ number... dollars...	21, 800 772, 416	26, 795 953, 904	81, 611 2, 423, 409	37, 585 4, 190, 703	*2, 091 232, 842
Clock-work, jewelry, and fancy articles.....	{ pounds... dollars...	6, 658, 520 28, 080, 457	6, 524, 780 22, 493, 856	6, 568, 980 16, 647, 861	5, 975, 200 15, 716, 382	6, 274, 620 16, 064, 288
Coal	{ tons... dollars...	1, 849, 100 4, 127, 181	2, 376, 890 5, 259, 800	2, 327, 050 4, 809, 501	3, 024, 560 4, 731, 182	3, 048, 870 4, 783, 680
Cotton yarn.....	{ pounds... dollars...	..... .....	..... .....	1, 072, 060 376, 896	1, 298, 000 359, 376	1, 154, 840 317, 100
Cotton goods	{ pounds... dollars...	..... .....	..... .....	4, 412, 780 2, 795, 010	3, 867, 600 2, 140, 485	5, 631, 780 2, 736, 787
Feathers.....	{ pounds... dollars...	..... .....	..... .....	..... .....	..... .....	5, 848, 420 3, 044, 160
Flour and meal	{ pounds... dollars...	84, 153, 800 8, 301, 662	188, 714, 180 4, 787, 072	184, 008, 000 8, 818, 692	248, 160, 000 11, 222, 169	226, 820, 000 17, 715, 924
Glass and glassware	{ pounds... dollars...	46, 150, 280 7, 127, 663	50, 911, 520 11, 510, 632	55, 188, 820 8, 682, 651	58, 063, 580 7, 007, 457	52, 324, 720 6, 211, 538
Grain.....	{ tons... dollars...	392, 044 7, 971, 618	511, 940 10, 793, 300	701, 360 27, 694, 155	770, 220 31, 189, 503	1, 073, 000 54, 812, 435
Hops.....	{ pounds... dollars...	..... .....	..... .....	6, 517, 720 3, 530, 229	2, 733, 940 1, 606, 440	4, 368, 100 1, 619, 022
Iron and iron ware.....	{ tons... dollars...	..... 5, 744, 968	47, 374 7, 809, 256	59, 889 10, 831, 118	48, 848 8, 648, 240	60, 066 7, 724, 556
Leather and leather goods...	{ pounds... dollars...	5, 068, 060 5, 659, 139	5, 432, 680 5, 483, 820	5, 578, 980 6, 651, 852	5, 907, 220 7, 100, 322	6, 748, 500 7, 865, 780
Linen manufactures	{ pounds... dollars...	13, 016, 080 7, 812, 204	16, 915, 580 9, 109, 108	16, 173, 460 6, 538, 149	16, 257, 440 6, 808, 042	17, 158, 900 6, 968, 503
Malt.....	{ pounds... dollars...	..... .....	..... .....	..... .....	..... .....	..... .....
Paper and manufactures of.	{ pounds... dollars...	25, 618, 680 4, 414, 691	29, 619, 040 5, 328, 416	31, 092, 160 4, 272, 696	37, 760, 460 4, 577, 565	42, 167, 840 4, 960, 125
Pulse	{ pounds... dollars...	..... .....	..... .....	99, 233, 800 8, 929, 725	108, 216, 460 8, 119, 811	63, 511, 280 1, 896, 258
Silk and silk goods	{ pounds... dollars...	† 913, 880 6, 016, 739	† 573, 400 6, 723, 473	2, 759, 690 6, 210, 476	2, 230, 600 6, 182, 544	2, 635, 600 4, 149, 983
Sugar, raw.....	{ pounds... dollars...	191, 589, 880 12, 217, 523	188, 959, 700 8, 935, 943	109, 818, 720 4, 083, 059	171, 665, 120 8, 129, 981	202, 073, 080 9, 903, 938
Sugar, refined.....	{ pounds... dollars...	Included in	raw sugar.	77, 223, 700 5, 084, 189	97, 202, 600 6, 804, 966	97, 565, 820 8, 732, 934
Wine	{ pounds... dollars...	..... .....	..... .....	81, 071, 040 1, 833, 291	41, 358, 400 2, 102, 373	85, 796, 200 1, 902, 147
Wood, common	{ tons... dollars...	..... .....	..... .....	1, 845, 849 16, 984, 229	1, 956, 413 16, 808, 226	2, 184, 569 18, 560, 769
Wooden ware	{ pounds... dollars...	..... .....	..... .....	..... .....	..... .....	51, 827, 100 4, 634, 190
Wool	{ pounds... dollars...	38, 507, 980 18, 887, 002	27, 009, 620 15, 193, 458	24, 009, 040 9, 633, 951	23, 503, 700 12, 079, 098	24, 834, 260 11, 466, 336
Wool manufactures	{ pounds... dollars...	8, 089, 180 7, 808, 899	8, 278, 160 7, 579, 498	8, 342, 620 9, 885, 254	8, 288, 500 9, 655, 243	8, 501, 460 9, 437, 349
All other articles	{ pounds... dollars...	78, 864, 475	81, 716, 336	71, 408, 496	64, 071, 504	64, 839, 578
TOTAL EXPORTS	dollars...	201, 977, 725	210, 710, 920	249, 539, 127	269, 638, 284	301, 970, 706

* Export prohibited.

† Pulse included in 1873 and 1874.

AUSTRIA-HUNGARY—Continued.

articles of domestic production exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
870, 478	780, 231	743, 848	758, 064	1, 217, 098	1, 253, 555	903, 865	713, 765
24, 879, 895	18, 244, 980	20, 179, 180	28, 178, 238	25, 504, 514	25, 891, 768	17, 347, 626	10, 648, 514
22, 446	86, 901	88, 436	41, 863	80, 376	29, 083	26, 093	32, 307
2, 915, 961	4, 582, 980	5, 877, 280	6, 713, 872	4, 850, 928	4, 584, 633	4, 471, 530	3, 829, 496
7, 706, 800	6, 800, 640	6, 593, 180	4, 279, 000	6, 908, 940	7, 592, 640	8, 575, 820	8, 856, 994
21, 254, 760	16, 563, 768	14, 744, 513	15, 678, 012	18, 053, 602	16, 876, 486	19, 041, 912	17, 513, 250
3, 384, 160	3, 595, 900	4, 069, 670	4, 007, 190	8, 816, 170	4, 450, 050	4, 513, 410	4, 514, 290
4, 069, 650	4, 031, 596	4, 295, 702	4, 831, 690	4, 876, 466	5, 895, 502	6, 081, 838	6, 138, 267
1, 427, 800	1, 016, 180	1, 235, 520	1, 591, 920	1, 509, 200	1, 875, 080	1, 643, 620	-----
394, 563	291, 456	353, 941	409, 085	398, 692	471, 676	420, 686	-----
6, 965, 100	5, 850, 900	6, 320, 180	7, 500, 900	6, 955, 520	8, 809, 240	7, 980, 940	7, 721, 278
3, 211, 881	2, 760, 615	3, 096, 789	3, 512, 410	3, 163, 584	3, 968, 296	3, 468, 670	3, 183, 732
4, 809, 640	5, 193, 320	7, 888, 700	6, 859, 380	6, 491, 100	7, 168, 260	7, 056, 940	7, 963, 950
2, 756, 052	2, 616, 894	3, 849, 338	3, 271, 872	3, 187, 912	3, 828, 678	3, 480, 212	3, 638, 036
509, 730, 000	539, 440, 000	292, 820, 000	277, 640, 000	407, 000, 000	418, 440, 000	341, 440, 000	333, 465, 200
28, 070, 827	10, 773, 054	10, 177, 828	9, 718, 758	18, 015, 954	12, 582, 979	8, 662, 072	9, 512, 172
60, 067, 720	60, 188, 480	68, 498, 500	72, 491, 100	81, 080, 400	81, 752, 000	80, 548, 180	84, 816, 312
6, 181, 185	6, 850, 760	7, 455, 476	6, 835, 565	8, 179, 276	8, 634, 733	8, 619, 498	7, 819, 521
898, 640	985, 710	683, 210	723, 920	1, 143, 540	789, 080	847, 080	661, 751
37, 190, 304	35, 486, 424	37, 320, 363	28, 638, 963	44, 124, 892	26, 944, 794	19, 440, 310	20, 505, 561
3, 416, 380	7, 264, 720	6, 755, 980	3, 699, 960	8, 266, 600	3, 119, 800	5, 267, 240	7, 087, 592
914, 607	2, 739, 825	2, 889, 064	833, 434	6, 112, 932	1, 417, 535	1, 715, 880	1, 632, 252
51, 921	51, 466	102, 892	55, 451	45, 444	46, 755	40, 485	44, 429
7, 356, 491	7, 001, 604	10, 165, 582	8, 971, 094	6, 788, 854	4, 714, 958	4, 627, 944	4, 372, 518
7, 643, 680	6, 000, 720	6, 146, 140	7, 319, 620	7, 442, 600	7, 821, 440	7, 402, 780	7, 125, 973
8, 826, 253	6, 249, 130	7, 163, 480	7, 710, 208	8, 611, 260	8, 506, 012	8, 152, 632	8, 427, 885
11, 504, 980	11, 513, 920	9, 050, 440	9, 977, 880	9, 137, 920	5, 912, 720	5, 143, 340	4, 029, 704
4, 454, 244	8, 886, 890	4, 019, 729	4, 232, 528	3, 712, 870	2, 270, 061	2, 069, 202	1, 488, 684
120, 732, 040	142, 562, 860	144, 951, 840	160, 018, 760	170, 674, 094	183, 232, 500	202, 090, 021	208, 491, 568
3, 480, 399	3, 755, 803	3, 945, 802	4, 292, 629	4, 567, 094	5, 009, 693	5, 484, 042	5, 013, 894
46, 833, 340	47, 051, 840	54, 391, 480	62, 885, 460	69, 565, 280	73, 011, 810	90, 320, 120	111, 920, 442
4, 669, 071	8, 812, 112	3, 246, 906	3, 610, 090	3, 247, 591	3, 420, 931	3, 964, 876	4, 505, 475
86, 268, 380	171, 699, 440	104, 800, 020	115, 543, 120	125, 862, 000	142, 255, 960	111, 168, 642	105, 922, 697
2, 398, 192	4, 846, 398	2, 741, 081	3, 636, 696	3, 782, 702	3, 889, 299	2, 815, 452	2, 832, 744
2, 176, 680	2, 497, 810	3, 701, 500	2, 858, 460	2, 056, 340	2, 961, 940	2, 737, 680	3, 016, 394
4, 701, 234	4, 741, 956	3, 797, 122	4, 514, 144	4, 229, 708	6, 027, 632	4, 805, 034	4, 499, 064
186, 016, 000	283, 244, 060	358, 591, 640	403, 397, 400	373, 042, 440	290, 680, 320	401, 578, 100	278, 449, 172
8, 732, 934	12, 792, 186	14, 513, 666	18, 507, 918	11, 674, 530	12, 884, 083	11, 681, 696	8, 909, 096
159, 024, 700	168, 896, 060	156, 723, 166	203, 890, 520	229, 013, 400	282, 030, 980	311, 532, 700	253, 415, 479
10, 586, 610	10, 289, 744	9, 243, 766	11, 886, 028	14, 766, 220	16, 984, 714	12, 856, 624	10, 936, 011
48, 870, 100	95, 628, 280	199, 278, 420	96, 406, 860	90, 293, 940	89, 469, 600	99, 164, 340	128, 018, 018
2, 321, 645	2, 971, 470	6, 418, 020	3, 603, 171	3, 715, 356	3, 790, 653	4, 331, 832	5, 510, 253
2, 000, 789	1, 891, 579	1, 920, 490	2, 108, 481	2, 210, 010	2, 323, 860	2, 448, 820	2, 460, 876
17, 650, 692	17, 787, 822	18, 493, 314	19, 009, 956	20, 911, 842	25, 094, 981	24, 457, 412	24, 616, 734
59, 184, 180	65, 568, 140	73, 126, 480	73, 535, 760	72, 607, 700	62, 921, 760	61, 842, 000	61, 672, 161
6, 190, 028	5, 451, 966	6, 573, 721	6, 469, 672	7, 125, 300	7, 061, 610	6, 914, 832	6, 939, 987
18, 741, 360	16, 775, 220	26, 503, 180	20, 818, 820	21, 339, 340	27, 038, 220	25, 024, 560	20, 272, 833
6, 682, 893	6, 218, 726	8, 048, 271	8, 045, 576	8, 173, 874	9, 896, 695	8, 725, 354	6, 470, 167
9, 589, 140	10, 866, 300	9, 608, 720	11, 800, 140	11, 558, 800	10, 289, 600	11, 180, 840	10, 806, 124
11, 876, 642	11, 433, 024	10, 077, 618	12, 846, 345	12, 100, 150	10, 620, 638	10, 592, 770	8, 585, 478
71, 279, 910	67, 628, 864	68, 204, 015	73, 253, 400	68, 986, 502	71, 520, 378	71, 014, 034	70, 102, 619
296, 576, 812	263, 183, 452	279, 185, 522	297, 708, 697	313, 948, 558	300, 357, 421	275, 217, 398	264, 128, 619

‡ Included with grain.

§ Silk manufactures only.

BELGIUM.

Value of imports from principal

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	14,000,413	17,785,915	15,757,897	22,143,101	15,826,000
Sweden and Norway.....	4,711,130	4,996,577	6,314,063	5,655,865	5,076,098
Denmark.....	1,868,867	1,003,021	620,037	528,060	277,148
Germany.....	33,105,290	32,202,436	33,118,221	37,782,259	41,643,031
Holland.....	34,554,334	33,040,249	32,720,448	35,708,088	37,980,227
United Kingdom.....	50,807,829	39,400,757	48,109,689	48,037,314	41,026,396
France.....	64,678,327	62,936,914	68,773,041	68,041,764	68,330,106
Spain.....	4,282,284	2,430,642	2,186,197	2,313,684	4,561,169
Italy.....	1,192,524	1,464,484	1,770,003	2,247,292	2,106,955
Switzerland.....	295,403	423,144	345,470	331,960	266,147
Asia.....	2,356,373	1,091,608	1,958,950	3,763,500	3,296,683
United States.....	26,225,326	23,805,392	13,639,117	21,404,472	23,612,778
Brazil.....	4,071,628	2,834,591	3,975,414	2,493,174	3,326,548
Uruguay.....	7,696,611	6,359,929	5,146,731	4,693,073	3,077,964
Argentine Republic.....	13,774,217	9,699,022	9,213,820	11,100,588	12,255,500
Chili and Peru.....	3,723,742	3,237,882	3,644,419	5,007,771	4,910,885
All other countries.....	7,791,727	6,730,296	5,978,521	8,343,562	7,681,619
TOTAL IMPORTS.....	274,585,925	249,445,359	252,272,087	279,570,536	275,255,249

Value of domestic produce exported to

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	2,423,694	2,701,895	3,555,060	3,719,111	4,869,104
Sweden and Norway.....	1,629,935	1,646,483	1,700,909	2,000,831	1,822,113
Denmark.....	369,209	530,557	770,640	762,736	781,843
Germany.....	51,850,352	46,922,160	47,144,496	47,154,146	42,994,031
Holland.....	25,459,788	30,234,994	28,979,529	31,910,813	31,970,450
United Kingdom.....	46,696,350	42,911,041	40,267,906	36,990,766	43,948,802
France.....	73,351,966	66,276,586	66,395,281	60,628,441	57,122,596
Spain.....	2,140,560	1,676,112	1,805,129	3,567,991	2,912,756
Italy.....	2,502,245	4,323,814	3,839,800	2,232,288	4,485,027
Switzerland.....	3,338,128	4,229,981	1,262,799	5,855,041	3,351,252
Asia.....	308	75,849	287,763	398,921	508,964
United States.....	3,144,163	3,592,888	3,194,922	2,206,569	2,027,465
Brazil.....	1,468,537	1,959,143	1,654,975	1,510,997	2,566,128
Argentine Republic.....	1,422,603	934,120	833,953	797,476	1,454,062
Chili and Peru.....	1,897,212	1,136,963	1,136,963	1,835,946	1,945,054
All other countries.....	6,940,066	5,974,434	10,610,318	4,245,587	5,988,983
TOTAL EXPORTS.....	223,605,168	215,125,520	212,640,452	205,807,610	208,808,630

BELGIUM.

countries—merchandise only.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
25, 029, 206	28, 161, 981	24, 444, 994	22, 818, 758	23, 764, 661	25, 791, 862	23, 907, 469	17, 967, 335
5, 566, 348	6, 413, 583	6, 856, 994	6, 287, 564	6, 762, 141	6, 738, 402	7, 345, 194	7, 662, 872
432, 513	858, 015	250, 128	862, 167	148, 224	108, 659	103, 448	416, 108
45, 666, 502	42, 501, 495	47, 293, 299	44, 203, 562	46, 880, 086	44, 988, 800	35, 783, 639	35, 921, 558
36, 078, 841	38, 929, 451	45, 647, 974	47, 356, 796	45, 955, 809	40, 584, 053	36, 183, 290	37, 949, 976
37, 490, 636	38, 558, 119	49, 238, 739	46, 376, 183	38, 256, 267	38, 187, 945	35, 677, 238	32, 598, 871
62, 370, 073	59, 657, 072	64, 600, 639	64, 779, 292	61, 295, 256	59, 279, 178	53, 438, 584	49, 397, 448
4, 388, 627	3, 552, 551	4, 664, 038	3, 597, 677	4, 124, 796	1, 622, 866	1, 682, 574	1, 405, 426
1, 205, 671	1, 654, 975	1, 871, 265	1, 829, 061	2, 306, 157	4, 416, 419	3, 976, 150	2, 970, 849
192, 807	210, 870	271, 175	206, 494	478, 447	512, 959	692, 098	768, 719
2, 074, 171	2, 955, 028	3, 492, 721	9, 670, 844	13, 825, 748	15, 906, 966	12, 462, 589	13, 274, 347
33, 942, 331	44, 327, 061	52, 323, 265	43, 044, 018	35, 771, 199	30, 799, 023	31, 009, 869	23, 238, 621
4, 047, 017	3, 537, 497	3, 696, 228	3, 879, 107	3, 584, 010	4, 397, 145	2, 950, 584	5, 007, 578
3, 063, 296	3, 560, 464	4, 385, 863	4, 056, 474	5, 096, 651	3, 115, 985	4, 260, 475	4, 896, 831
10, 429, 877	7, 688, 734	7, 614, 622	6, 317, 855	8, 703, 528	9, 348, 148	11, 888, 589	10, 637, 002
6, 384, 491	5, 904, 256	1, 621, 972	1, 401, 759	2, 569, 023	1, 269, 168	3, 647, 507	2, 214, 482
5, 333, 046	6, 489, 818	6, 685, 950	8, 392, 725	7, 795, 849	12, 881, 026	10, 156, 438	13, 155, 241
284, 242, 452	294, 461, 065	324, 412, 156	314, 565, 296	310, 259, 852	299, 642, 843	275, 168, 785	259, 980, 264

principal countries—merchandise only.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
4, 428, 455	3, 274, 631	2, 551, 460	2, 080, 540	1, 887, 926	1, 536, 826	1, 532, 227	1, 185, 792
1, 307, 575	1, 266, 852	1, 560, 405	1, 593, 215	1, 666, 748	1, 391, 616	1, 396, 126	1, 436, 118
425, 179	512, 029	545, 997	877, 185	765, 438	690, 747	1, 029, 462	1, 409, 865
42, 542, 990	47, 937, 726	45, 144, 244	48, 391, 043	43, 785, 524	44, 272, 270	45, 594, 513	42, 091, 756
28, 206, 371	30, 131, 100	29, 176, 003	30, 943, 883	31, 832, 186	34, 421, 936	34, 007, 565	35, 263, 223
48, 142, 414	44, 454, 848	47, 638, 734	49, 095, 147	50, 548, 244	52, 803, 642	48, 663, 406	46, 901, 883
63, 559, 725	71, 518, 774	77, 054, 285	80, 059, 681	85, 184, 024	80, 184, 745	79, 519, 052	62, 120, 138
3, 629, 172	3, 774, 694	3, 865, 211	5, 438, 161	5, 918, 538	7, 462, 845	6, 374, 790	4, 951, 608
2, 530, 037	5, 549, 136	3, 965, 216	5, 548, 750	5, 179, 541	5, 952, 892	6, 374, 790	5, 926, 258
3, 696, 336	4, 894, 188	5, 864, 691	4, 715, 955	4, 801, 261	4, 251, 790	6, 023, 916	6, 004, 862
757, 718	1, 496, 679	1, 963, 003	1, 231, 533	2, 101, 334	2, 478, 699	2, 370, 812	2, 420, 794
1, 796, 251	3, 785, 502	6, 995, 092	3, 228, 169	3, 622, 661	3, 365, 006	7, 634, 887	6, 403, 938
4, 556, 730	3, 996, 451	2, 570, 953	3, 990, 661	2, 735, 196	1, 841, 857	1, 952, 774	2, 744, 460
1, 339, 227	1, 828, 612	1, 040, 849	2, 090, 190	2, 367, 145	1, 969, 179	3, 343, 918	2, 110, 262
2, 194, 410	963, 456	774, 702	1, 518, 910	1, 235, 187	737, 260	875, 534	558, 928
5, 672, 846	5, 090, 725	4, 126, 168	5, 612, 367	6, 671, 171	10, 739, 678	11, 449, 875	11, 967, 204
214, 683, 986	229, 745, 468	284, 831, 018	251, 415, 310	255, 902, 174	256, 232, 818	258, 133, 447	231, 900, 679

BELGIUM—Continued.

Quantities and value of principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
Animals, horses ex- cepted.....	{ number..... 427,983 dollars..... 9,170,588	{ 372,721 7,387,268	{ 387,426 8,518,037	{ 353,182 8,490,649	{ 441,042 12,374,221
Coffee.....	{ pounds..... 60,770,800 dollars..... 10,463,802	{ 41,848,400 8,720,819	{ 48,162,400 10,355,433	{ 58,240,600 11,872,588	{ 44,849,200 9,425,155
Cotton.....	{ pounds..... 39,683,600 dollars..... 6,955,334	{ 45,078,000 7,778,479	{ 40,147,800 6,444,849	{ 42,226,800 5,826,670	{ 44,627,000 5,364,242
Cotton manufactures.....	{ pounds..... dollars..... 2,638,503	{ 2,604,859	{ 2,900,404	{ 2,895,709	{ 2,884,200 2,086,523
Dyes and dyestuffs.....	{ pounds..... 38,962,000 dollars..... 1,742,211	{ 45,509,200 2,030,167	{ 48,424,200 1,818,446	{ 51,409,600 2,200,972	{ 43,929,200 1,967,357
Grain, all kinds.....	{ tons..... 766,825 dollars..... 44,698,975	{ 833,100 45,647,009	{ 755,378 35,254,538	{ 1,018,128 48,916,552	{ 887,755 48,198,855
Hides, raw.....	{ pounds..... 92,901,000 dollars..... 17,814,093	{ 75,185,000 14,510,898	{ 78,337,600 18,057,415	{ 70,626,600 8,054,662	{ 66,037,200 8,221,221
Horses.....	{ number..... 9,776 dollars..... 1,258,728	{ 9,092 1,159,351	{ 8,395 1,105,311	{ 8,632 1,102,223	{ 7,758 963,649
Iron, ore and pig.....	{ tons..... 928,227 dollars..... 7,479,278	{ 986,838 6,212,477	{ 1,046,382 6,221,355	{ 966,237 6,990,646	{ 1,064,287 6,964,297
Manure.....	{ tons..... 187,400 dollars..... 6,027,197	{ 197,800 4,704,375	{ 148,875 6,310,907	{ 166,168 7,749,915	{ 127,150 6,764,143
Meat.....	{ pounds..... 65,577,600 dollars..... 8,629,609	{ 23,144,000 3,045,733	{ 10,674,000 1,404,847	{ 28,377,800 3,764,164	{ 38,687,000 5,090,761
Metals and minerals*.....	{ tons..... 860,708 dollars..... 8,860,244	{ 297,558 7,309,103	{ 266,974 6,557,175	{ 234,874 8,080,331	{ 357,094 8,761,464
Resin and bitumen†.....	{ pounds..... 290,782,800 dollars..... 9,487,108	{ 284,928,600 7,097,382	{ 306,664,600 7,239,998	{ 281,398,200 8,667,437	{ 348,086,200 9,741,289
Seeds, oil.....	{ pounds..... 147,422,000 dollars..... 5,178,172	{ 139,004,800 4,268,002	{ 191,996,200 5,895,185	{ 227,361,200 6,881,003	{ 168,610,200 5,472,901
Silk.....	{ pounds..... 192,390 dollars..... 1,856,660	{ 341,391 2,845,206	{ 859,404 6,031,443	{ 550,581 5,313,097	{ 478,808 3,242,014
Silk manufactures.....	{ pounds..... 438,149 dollars..... 5,319,852	{ 445,407 4,298,110	{ 470,826 3,717,573	{ 457,404 5,015,877	{ 374,174 2,954,251
Tallow.....	{ pounds..... 71,879,000 dollars..... 6,261,885	{ 54,021,000 4,738,922	{ 44,244,200 4,269,546	{ 55,992,200 5,403,228	{ 55,129,800 5,320,045
Vegetable fibers.....	{ pounds..... 111,837,000 dollars..... 12,458,348	{ 106,053,200 11,080,516	{ 104,935,600 14,350,129	{ 102,740,000 12,765,985	{ 120,293,800 14,911,375
Wine.....	{ gallons..... 5,212,461 dollars..... 4,187,920	{ 4,524,428 3,680,896	{ 6,579,349 5,025,720	{ 6,738,918 4,634,316	{ 5,067,010 4,037,367
Wood for building.....	{ cubic meters..... 477,567 dollars..... 9,181,818	{ 478,792 9,426,506	{ 474,736 8,858,279	{ 459,884 8,473,472	{ 418,404 7,494,769
Wool.....	{ pounds..... 117,436,000 dollars..... 23,180,072	{ 112,518,800 22,170,103	{ 100,815,000 22,111,624	{ 114,191,000 30,052,802	{ 107,698,800 30,698,387
Woolen manufactures.....	dollars..... 5,138,993	dollars..... 5,079,374	dollars..... 5,165,645	dollars..... 4,963,030	dollars..... 4,435,383
All other articles.....	dollars..... 66,667,040	dollars..... 63,560,304	dollars..... 69,612,180	dollars..... 71,935,948	dollars..... 71,866,680
TOTAL IMPORTS.....	dollars..... 274,585,925	dollars..... 249,445,359	dollars..... 252,272,037	dollars..... 279,570,536	dollars..... 275,255,249

* Except iron, copper, tin, and coal.

† Including petroleum.

BELGIUM—Continued.

imported and entered for home consumption.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
428,732	430,886	488,209	482,037	503,991	548,635	456,986	402,791
10,862,428	10,521,588	12,440,394	10,537,221	10,304,270	12,409,321	10,374,136	10,414,859
50,773,800	54,916,400	50,061,000	58,900,800	62,033,200	62,715,400	34,860,000	57,806,280
9,291,599	8,703,721	8,747,339	8,414,028	7,894,795	7,250,238	5,418,264	6,015,038
48,320,800	47,874,200	51,429,400	65,154,000	55,499,400	52,559,400	54,454,400	38,155,820
6,184,685	6,851,693	8,337,214	7,062,642	7,536,650	7,352,528	6,796,802	4,179,801
3,234,000	3,313,200	3,867,900	8,968,600	4,869,200	4,701,400	4,870,800	5,439,735
2,175,689	2,271,417	2,630,783	2,689,455	2,669,676	2,917,967	2,695,631	2,707,982
42,545,800	46,789,600	51,889,200	50,144,600	52,283,000	62,524,000	68,976,600	80,815,455
1,892,172	2,211,894	2,108,718	2,379,111	2,689,648	2,612,448	2,625,765	3,006,361
1,196,432	1,458,072	1,336,776	1,302,426	1,446,504	1,411,440	1,430,979	1,295,866
55,749,015	64,979,433	64,722,936	62,405,778	66,868,131	53,159,148	50,411,021	42,668,054
71,491,200	69,982,000	85,818,200	66,140,800	74,808,800	89,291,400	81,463,800	92,763,120
8,153,285	7,981,129	11,227,003	9,863,844	11,166,553	14,160,021	12,863,536	14,805,993
9,180	8,328	8,783	8,874	10,610	11,172	12,174	14,306
1,170,738	1,130,401	1,176,914	1,178,456	1,523,349	1,638,184	1,707,639	2,182,071
1,144,922	886,914	1,258,294	1,508,108	1,531,401	1,980,362	1,790,391	1,666,115
7,617,324	6,445,621	4,923,044	5,236,476	5,210,035	6,094,940	4,953,924	4,396,926
153,717	125,116	72,810	68,893	77,523	40,335	68,316	44,829
8,295,526	0,783,050	3,633,050	8,364,762	8,839,938	1,590,299	4,772,705	1,772,705
66,880,000	81,593,600	84,957,400	51,471,200	43,960,400	31,783,400	20,706,400	26,107,200
8,800,807	10,736,783	11,179,525	6,673,142	3,179,289	4,182,503	3,451,612	4,841,728
441,404	369,689	419,162	410,194	509,654	7,675,803	6,848,991	7,520,245
10,871,304	9,097,055	12,206,164	10,075,951	12,518,945	7,675,803	6,848,991	7,520,245
364,315,600	315,495,400	373,890,000	448,155,400	401,808,600	396,607,000	481,969,400	445,478,355
7,990,200	6,016,582	7,405,603	8,001,973	7,465,626	7,867,416	8,789,835	8,294,666
189,758,800	220,074,800	269,222,800	308,136,400	306,664,600	397,034,000	349,492,000	357,904,575
5,826,477	6,178,223	8,030,151	9,190,853	8,601,861	11,145,750	9,197,608	9,282,335
471,502	435,665	472,076	458,607	490,888	288,094	455,628	330,263
2,891,333	2,485,647	2,816,063	2,816,256	3,014,467	1,769,231	2,804,676	2,023,026
390,550	352,891	438,478	498,938	402,586	363,728	394,239	315,281
2,740,986	2,321,790	2,692,543	2,845,013	2,829,896	2,061,626	1,905,875	1,793,742
59,890,690	65,421,400	78,135,200	51,451,400	54,135,400	57,919,400	54,815,200	71,757,315
4,991,366	4,878,268	6,169,032	4,062,264	4,749,151	5,386,051	4,808,788	5,024,725
122,515,800	135,863,200	150,088,400	146,733,400	151,731,800	17,327,926	17,398,757	13,893,491
13,637,066	15,993,524	19,222,993	17,838,990	17,121,416	4,784,662	5,355,691	5,236,641
4,899,816	5,271,281	5,896,593	4,981,457	5,457,172	3,868,878	4,301,005	4,203,926
3,918,479	4,184,639	4,342,886	4,023,278	4,327,832	4,801,005	4,301,005	4,203,926
440,854	462,940	512,673	495,370	536,972	491,382	491,382	511,012
8,033,625	8,659,138	9,942,781	9,583,994	10,206,226	9,319,970	8,744,251	9,116,741
103,270,200	95,231,400	108,883,000	100,119,800	125,411,000	106,887,600	80,117,400	96,583,410
28,294,572	27,151,819	35,656,899	34,254,605	22,003,930	18,661,188	13,913,909	14,794,222
4,235,578	3,718,838	4,534,342	4,289,978	4,286,530	4,017,681	4,057,825	4,235,964
70,599,400	75,254,460	80,262,259	81,577,224	91,262,436	97,182,628	87,946,666	83,355,660
284,243,452	294,461,065	324,412,156	314,565,296	310,259,852	299,642,343	275,168,785	259,960,264

BELGIUM—Continued.

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Arms.....dollars...	2,753,338	3,228,890	3,391,589	2,788,605	2,611,290
Butter.....{ pounds ..	10,777,800	10,802,000	10,043,000	9,798,000	9,629,400
{ dollars ..	2,981,091	3,032,416	2,819,537	2,922,985	2,678,424
Candles.....{ pounds ..	12,535,600	13,074,600	10,414,800	7,828,200	12,394,800
{ dollars ..	2,749,285	2,867,594	2,283,962	1,715,577	2,718,568
Coal.....{ tons	4,574,000	4,292,000	4,470,000	4,211,000	3,866,000
{ dollars ..	21,265,512	15,813,850	15,686,847	13,300,209	10,175,925
Coke.....{ tons	882,200	658,900	710,600	628,100	633,600
{ dollars ..	6,809,040	3,352,796	3,939,826	2,865,857	2,332,984
Cotton goods.....dollars...	3,111,932	2,064,261	3,441,576	3,079,894	3,859,744
Flax.....{ tons	86,763	40,942	33,282	22,950	86,232
{ dollars ..	14,512,828	15,803,805	17,518,224	11,275,060	14,621,873
Glass and glassware.....dollars...	6,076,798	7,559,424	7,729,457	7,433,009	7,291,926
Grain of all kinds.....{ tons	228,189	271,677	268,711	252,024	307,817
{ dollars ..	11,770,491	14,877,585	8,716,652	15,715,604	14,675,374
Hides, raw.....{ pounds ..	55,565,400	54,798,900	55,818,400	58,394,600	44,147,400
{ dollars ..	10,722,308	10,673,891	9,903,758	6,659,658	5,422,142
Horses.....{ number ..	9,785	9,447	12,212	10,774	10,155
{ dollars ..	1,256,237	1,210,689	1,575,652	1,367,598	1,304,873
Iron, wrought, &c.....{ tons	199,827	225,195	209,985	192,777	191,850
{ dollars ..	10,934,801	11,648,129	9,523,182	8,740,777	9,184,291
Linen goods.....dollars...	5,706,045	4,812,585	4,197,171	3,356,077	3,824,681
Linen and hemp yarn.....{ pounds ..	10,524,800	15,556,200	21,857,000	19,118,000	20,787,800
{ dollars ..	5,419,064	7,137,688	10,894,042	8,720,128	8,688,860
Machinery.....dollars...	9,947,955	9,061,229	9,170,202	8,515,160	12,644,660
Paper, and paper hangings..{ pounds ..	34,584,000	31,790,000	34,579,600	38,913,600	41,267,600
{ dollars ..	3,392,940	3,104,791	3,454,507	3,875,826	4,069,984
Rosins and bitumens.....{ tons	70,025	72,332	91,000	86,708	93,466
{ dollars ..	4,762,275	3,605,819	4,831,293	5,024,020	5,412,492
Stone, rough and hewn.....dollars...	8,011,044	7,555,178	7,764,911	9,773,713	10,415,245
Sugar, raw.....{ tons	69,333	78,832	75,877	64,008	51,685
{ dollars ..	7,298,874	7,884,050	7,189,057	6,176,579	5,894,418
Tallow.....{ pounds ..	58,546,400	44,644,800	36,865,400	47,097,600	44,202,400
{ dollars ..	5,136,116	3,916,549	3,557,569	4,544,987	4,265,498
Woolen yarn.....{ pounds ..	16,629,800	10,887,900	10,056,200	8,115,700	10,796,000
{ dollars ..	13,814,554	9,528,217	9,235,822	7,628,711	9,435,770
Wool manufactures.....dollars...	7,639,905	8,181,270	8,034,204	7,517,929	6,599,635
Zinc, unwrought.....{ pounds ..	77,422,400	68,725,800	79,054,800	79,021,800	93,137,000
{ dollars ..	4,787,172	3,936,235	4,507,901	4,508,971	5,310,974
All other articles.....dollars...	53,395,573	55,886,129	54,277,511	57,208,708	55,868,979
TOTAL EXPORTS.....	223,605,168	215,125,520	212,640,492	205,307,610	208,808,630

articles of domestic produce exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
2,688,683	2,531,888	2,795,412	2,627,888	2,736,933	2,669,083	2,533,125	2,187,076
12,078,000	11,508,200	10,135,400	9,343,400	8,518,400	9,185,000	9,611,800	10,085,670
3,072,560	2,867,401	2,845,206	2,623,063	2,316,886	2,546,056	2,860,776	2,457,554
12,731,400	12,085,600	13,048,200	18,867,800	12,262,800	12,700,600	14,977,600	11,721,880
2,780,531	2,870,103	2,861,610	4,028,296	2,689,262	2,785,376	3,284,960	2,051,976
4,728,000	4,660,000	4,977,500	4,924,700	4,721,200	4,885,100	5,090,900	4,818,000
10,884,428	11,445,093	12,564,493	12,269,010	12,011,162	12,429,007	11,012,872	10,509,078
634,700	655,600	935,000	1,065,000	1,204,500	1,096,700	989,400	933,900
2,170,092	1,840,641	3,282,851	3,407,801	4,309,690	4,039,490	2,967,861	2,860,629
3,615,469	3,083,754	5,455,631	4,616,560	4,361,221	4,026,752	4,040,069	3,176,464
32,795	36,110	31,039	29,909	34,838	31,621	32,240	44,181
12,946,633	14,672,465	18,069,960	12,069,641	13,447,661	12,206,899	14,760,833	10,628,072
7,635,659	8,842,618	9,628,884	10,506,920	10,136,167	10,924,186	9,342,358	9,418,786
437,775	627,919	502,894	545,040	574,934	515,830	558,087	415,758
18,933,986	20,150,825	23,364,194	24,808,220	25,864,895	18,861,275	19,174,743	13,068,365
55,444,400	55,299,200	54,375,200	57,901,800	52,397,400	52,705,400	62,587,800	69,062,565
6,311,496	6,806,661	7,156,475	8,685,206	7,814,377	8,322,546	9,883,837	11,005,524
8,709	10,021	11,262	11,568	12,526	12,058	13,796	15,088
1,105,118	1,269,664	1,442,482	1,493,259	1,634,710	1,667,546	1,777,337	1,967,636
212,452	262,182	280,607	262,097	295,424	308,668	311,423	290,976
10,346,923	11,885,070	7,514,648	7,853,942	8,824,176	9,184,870	7,879,741	6,540,384
3,965,571	3,629,365	3,741,691	4,200,066	4,006,487	4,006,680	4,436,105	5,052,354
22,092,400	27,099,600	25,148,300	26,980,800	31,457,800	36,785,800	40,550,400	43,502,445
8,220,449	10,721,545	9,908,023	10,647,617	10,148,519	11,468,060	13,938,846	16,871,225
7,620,219	7,976,497	8,417,309	10,874,199	14,935,498	13,974,551	10,560,767	8,240,325
41,379,400	41,318,200	42,739,400	45,491,600	43,136,000	43,682,600	47,735,600	42,917,310
4,043,947	3,991,047	4,166,291	4,348,097	4,015,944	4,060,913	4,495,935	4,128,823
90,880	77,460	77,420	92,349	88,653	90,850	118,716	108,616
3,986,223	2,918,932	2,857,172	3,352,989	3,051,137	3,413,205	4,187,521	3,873,708
3,985,151	10,464,074	11,225,652	11,701,590	11,983,756	14,449,911	19,075,927	11,760,465
64,820	62,445	67,870	70,288	68,474	100,218	64,639	68,589
6,027,583	5,916,415	6,452,955	7,024,042	6,560,649	8,860,437	3,952,833	4,202,189
41,646,000	56,916,200	58,478,200	54,164,000	58,801,600	60,326,200	68,710,400	76,348,125
3,470,912	4,244,263	4,617,139	4,276,494	5,158,404	5,610,738	6,027,776	5,346,100
14,062,400	14,890,200	16,937,800	17,138,000	15,100,800	19,726,200	19,604,200	20,682,695
13,039,623	12,265,343	15,153,588	14,279,491	8,098,473	10,661,132	10,272,817	8,447,224
7,519,280	4,970,522	5,385,277	6,053,445	5,863,340	4,857,424	5,108,517	5,507,255
85,476,600	97,517,200	99,697,400	118,030,600	108,103,600	121,561,000	133,842,000	135,686,880
4,874,022	5,560,716	5,685,008	6,730,296	6,164,227	6,981,788	7,918,404	5,344,363
60,434,669	64,415,670	65,246,162	72,982,178	79,709,000	81,875,543	79,641,087	77,231,709
214,683,936	229,745,463	234,831,013	251,415,310	255,902,174	260,328,318	253,133,447	231,600,579

DENMARK.*Imports (merchandise only)*

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....		2, 648, 376	1, 915, 932	2, 549, 216	3, 073, 692
Norway.....		2, 610, 588	2, 024, 740	1, 654, 096	1, 457, 052
Sweden.....		7, 037, 680	6, 938, 788	7, 206, 252	6, 537, 860
Germany.....		22, 294, 652	22, 462, 956	23, 601, 956	22, 749, 984
United Kingdom.....		15, 562, 296	17, 041, 584	15, 831, 296	14, 353, 812
Holland.....		1, 860, 188	1, 959, 884	2, 068, 692	1, 404, 820
Belgium.....		756, 832	946, 576	829, 192	1, 261, 176
France.....		1, 192, 064	1, 293, 368	1, 167, 408	899, 676
Iceland.....		765, 140	713, 962	742, 628	966, 140
United States.....		1, 200, 372	564, 676	1, 032, 472	2, 158, 470
Brasil.....		1, 694, 064	972, 036	553, 080	936, 892
All other countries.....		4, 875, 348	4, 189, 108	4, 110, 448	4, 602, 366
TOTAL IMPORTS.....		63, 497, 600	61, 023, 600	61, 345, 736	60, 401, 840

Exports (merchandise only)

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia		233, 696	340, 860	309, 541	246, 024
Norway		3, 965, 060	4, 760, 752	4, 333, 292	3, 205, 548
Sweden		6, 507, 576	6, 123, 264	6, 983, 904	7, 008, 200
Germany		15, 937, 424	13, 266, 000	14, 156, 028	14, 279, 040
United Kingdom.....		19, 051, 048	19, 462, 428	20, 390, 244	17, 068, 884
Holland		348, 936	280, 328	276, 308	153, 832
Belgium		310, 076	325, 084	288, 904	101, 036
France		33, 500	12, 060	47, 168	296, 944
Iceland		795, 424	612, 916	806, 412	747, 452
United States.....		102, 108	35, 644	4, 020	4, 288
Brazil		15, 276	4, 288	.....	268
All other countries		913, 176	899, 676	817, 935	918, 168
TOTAL EXPORTS.....		48, 213, 200	46, 122, 800	48, 418, 756	44, 029, 184

DENMARK.

from the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
1, 985, 764	2, 849, 376	2, 758, 524	1, 882, 968	2, 490, 792	3, 078, 764	4, 425, 752	.....
1, 395, 744	1, 401, 908	1, 638, 552	1, 728, 992	2, 005, 980	1, 975, 180	2, 065, 308	.....
5, 448, 976	4, 975, 688	7, 440, 216	6, 659, 264	8, 528, 564	11, 150, 408	10, 503, 992	.....
20, 277, 148	19, 499, 680	21, 554, 704	24, 425, 788	26, 119, 548	27, 527, 388	26, 415, 956	.....
11, 072, 688	12, 645, 044	14, 220, 348	15, 803, 960	15, 706, 676	17, 552, 600	16, 777, 336	.....
1, 655, 704	1, 523, 044	1, 651, 652	1, 891, 008	1, 630, 512	1, 719, 672	1, 784, 864	.....
902, 892	829, 728	756, 832	1, 106, 036	1, 865, 906	1, 106, 036	1, 205, 196	.....
850, 096	840, 180	1, 144, 360	1, 330, 620	1, 084, 212	1, 390, 652	1, 380, 200	.....
929, 424	1, 116, 220	834, 016	951, 400	1, 084, 060	1, 058, 064	754, 420	.....
2, 182, 324	2, 902, 440	4, 788, 356	5, 076, 724	3, 198, 756	4, 587, 892	4, 152, 124	.....
2, 412	72, 092	82, 544	80, 552	.....	.....	.....	.....
4, 874, 028	4, 676, 600	4, 072, 796	4, 828, 288	4, 690, 704	6, 171, 804	4, 070, 452	.....
51, 027, 200	53, 332, 000	60, 943, 200	65, 713, 600	67, 850, 800	77, 813, 000	73, 485, 600	.....

to principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
208, 144	184, 920	287, 028	865, 016	624, 976	416, 304	690, 636	.....
2, 836, 512	2, 367, 780	4, 226, 360	4, 711, 172	3, 265, 312	3, 030, 276	2, 791, 488	.....
5, 658, 728	5, 372, 864	7, 160, 424	7, 494, 084	7, 145, 684	8, 107, 000	7, 114, 060	.....
12, 884, 100	14, 479, 236	17, 829, 504	16, 571, 512	16, 096, 848	15, 904, 192	15, 478, 340	.....
16, 919, 108	17, 040, 780	20, 866, 392	17, 087, 680	19, 662, 356	22, 008, 068	18, 844, 600	.....
321, 600	254, 600	422, 100	322, 136	198, 764	313, 292	142, 308	.....
224, 852	354, 296	91, 388	147, 400	114, 168	127, 082	129, 960	.....
466, 956	599, 516	266, 124	189, 208	195, 104	417, 276	362, 336	.....
767, 820	868, 264	853, 992	859, 208	1, 009, 556	1, 029, 656	888, 420	.....
4, 556	186, 528	333, 392	431, 892	978, 200	1, 016, 792	962, 120	.....
268	3, 752	1, 608	6, 968	1, 072	1, 072	.....	.....
754, 956	658, 264	850, 488	991, 724	1, 097, 460	1, 207, 340	906, 912	.....
41, 057, 600	42, 370, 800	52, 683, 800	48, 178, 000	50, 384, 000	53, 573, 200	47, 811, 200	.....

FRANCE.

Statement showing the

Whence imported.	1873.	1874.	1875.	1876.	1877.
<i>Continent of Europe.</i>					
<i>The United Kingdom:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Entered for consumption	115,008,700	114,108,100	120,489,900	125,430,700	110,839,900
Transit and re-export trade	31,130,900	24,954,900	23,951,300	80,609,800	28,120,100
Total	146,139,600	139,153,000	144,441,200	156,040,500	138,960,000
<i>Belgium:</i>					
Entered for consumption	91,597,800	78,994,900	84,765,600	77,875,500	78,917,700
Transit and re-export trade	13,085,400	12,162,600	10,827,300	11,155,400	10,769,400
Total	104,683,200	92,157,500	95,592,900	89,030,900	89,687,100
<i>Germany:</i>					
Entered for consumption	60,042,300	60,891,500	66,337,000	75,077,000	71,950,400
Transit and re-export trade	20,593,100	21,886,200	20,570,200	17,466,500	20,226,400
Total	80,635,400	82,777,700	86,927,200	92,543,500	88,683,500
<i>Italy:</i>					
Entered for consumption	66,739,400	55,757,700	62,242,500	79,172,200	65,967,400
Transit and re-export trade	17,543,700	13,510,000	17,022,600	18,292,800	16,733,100
Total	84,283,100	69,267,700	79,265,100	97,465,000	86,103,800
<i>Switzerland:</i>					
Entered for consumption	17,717,400	18,566,600	18,084,100	21,249,300	18,547,300
Transit and re-export trade	48,558,800	49,755,400	45,470,800	5,365,400	46,030,500
Total	66,276,200	68,322,000	63,554,900	65,090,300	64,577,800
<i>Spain:</i>					
Entered for consumption	27,213,000	25,070,700	18,161,300	18,547,300	21,075,600
Transit and re-export trade	7,372,600	5,577,700	4,651,300	5,365,400	1,254,500
Total	34,585,600	30,648,400	22,812,600	23,912,700	29,972,900
<i>Russia:</i>					
Entered for consumption	26,402,400	35,357,600	37,024,500	34,045,200	39,024,600
Transit and re-export trade	9,920,200	6,330,400	8,106,000	3,917,900	1,254,500
Total	36,322,600	41,688,000	46,030,500	37,963,100	40,279,100
<i>Turkey:</i>					
Entered for consumption	83,562,700	82,964,400	23,642,500	86,226,100	80,426,800
Transit and re-export trade	11,580,000	2,933,600	4,033,700	5,191,700	46,030,500
Total	45,142,700	85,898,000	27,676,200	41,417,800	35,512,000
<i>Austria:</i>					
Entered for consumption	10,518,500	12,776,700	11,174,700	13,301,200	10,883,400
Transit and re-export trade	212,300	38,500	656,200	450,700	810,600
Total	10,730,800	12,815,200	11,830,900	13,750,900	11,194,000
<i>Sweden:</i>					
Entered for consumption	7,062,100	7,353,300	8,820,100	11,186,100	10,750,100
Transit and re-export trade	250,900	173,700	250,900	270,200	183,000
Total	7,313,000	7,527,000	9,071,000	11,456,300	10,933,100
<i>Holland:</i>					
Entered for consumption	7,720,000	5,809,300	6,407,600	7,642,800	6,600,600
Transit and re-export trade	1,119,400	675,500	887,800	752,700	783,400
Total	8,839,400	6,484,800	7,295,400	8,395,500	7,384,000
<i>Greece:</i>					
Entered for consumption	810,600	1,003,600	1,119,400	887,800	887,800
Transit and re-export trade	424,000	135,100	250,900	115,600	289,500
Total	1,235,200	1,138,700	1,370,300	1,003,600	1,177,300
<i>Norway:</i>					
Entered for consumption	6,421,500	5,944,400	4,168,800	6,118,100	5,191,000
Transit and re-export trade	44,000	19,300	77,200	88,600	20,700
Total	6,465,500	5,963,700	4,246,000	6,206,700	5,211,700
<i>Portugal:</i>					
Entered for consumption	2,914,300	2,353,200	1,544,000	2,296,700	2,219,500
Transit and re-export trade	598,300	503,200	559,700	636,900	482,500
Total	3,512,600	2,856,400	2,103,700	2,933,600	2,702,000
<i>Roumania:</i>					
Entered for consumption .....	.....	.....	.....	.....	.....
Transit and re-export trade .....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....
<i>Denmark:</i>					
Entered for consumption	57,900	96,500	57,900	77,200	212,300
Transit and re-export trade .....	.....	.....	.....	19,300	96,500
Total	57,900	96,500	57,900	96,500	308,800
TOTAL FROM EUROPE:					
Entered for consumption	474,888,600	457,138,500	464,959,900	509,083,200	473,994,400
Transit and re-export trade	162,434,200	139,656,100	137,315,900	138,103,700	139,742,700
Total	636,822,800	596,794,600	602,275,800	647,186,900	612,737,100
<i>Continent of Africa.</i>					
<i>Algeria:</i>					
Entered for consumption	28,679,800	21,789,700	20,939,800	23,661,800	23,565,300
Transit and re-export trade	386,000	482,509	791,300	714,100	714,100
Total	29,065,800	22,272,200	21,751,100	24,375,900	24,279,400
<i>Egypt:</i>					
Entered for consumption	8,935,900	10,209,700	7,044,500	12,564,800	10,306,200
Transit and re-export trade	1,851,000	1,177,300	1,196,000	2,033,700	1,408,900
Total	10,286,900	11,387,000	8,241,100	14,668,900	11,715,100

FRANCE.

imports by countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
111,997,900	115,607,000	127,055,500	135,601,800	139,328,700	124,488,100	118,945,900	103,690,800
23,553,000	28,236,000	27,098,600	28,680,500	29,953,600	25,940,900	32,542,709	18,701,700
135,350,900	143,843,000	154,149,100	164,282,300	169,280,300	150,804,000	141,488,600	122,382,000
79,323,000	80,095,000	88,278,200	91,037,400	98,101,900	94,898,100	89,350,000	78,068,300
10,981,700	15,073,800	19,724,600	20,250,700	24,607,500	21,075,600	11,039,600	17,812,800
90,304,700	95,168,800	108,002,800	111,308,100	122,709,400	115,973,700	100,398,600	95,880,600
80,770,500	79,709,000	84,572,600	87,757,100	91,964,500	89,127,400	80,461,700	72,201,300
17,350,700	17,466,500	21,884,400	20,892,600	26,402,400	23,449,500	16,926,100	18,064,800
98,121,200	97,175,500	105,957,000	108,649,700	118,868,900	112,678,900	97,887,800	90,266,100
67,260,500	60,055,400	76,871,900	83,549,700	69,750,200	82,488,900	71,150,100	50,701,100
21,528,700	21,868,500	26,865,600	28,544,700	21,249,300	14,668,000	12,217,000	14,359,200
90,787,200	90,922,300	103,787,500	112,094,400	90,969,500	97,136,900	84,876,100	65,080,300
21,807,200	19,917,600	23,021,300	24,221,500	23,237,200	23,777,800	22,561,700	22,488,000
43,850,300	46,956,900	57,633,900	49,890,500	48,250,000	47,053,400	44,281,400	35,894,500
65,157,500	60,874,500	79,554,600	74,112,000	71,487,200	70,831,000	66,912,100	58,382,500
28,737,700	35,280,400	66,187,600	71,545,100	70,868,600	71,757,400	57,591,200	69,680,900
4,620,300	4,842,500	4,751,300	6,080,200	7,276,100	6,291,800	11,707,900	8,551,200
33,358,000	39,622,900	70,888,900	77,605,300	78,145,700	73,049,200	69,289,100	77,007,000
67,472,800	66,199,000	60,621,800	43,946,100	52,110,000	40,105,400	42,247,700	81,516,900
9,581,600	6,689,200	6,172,400	4,641,300	4,342,500	7,160,300	945,700	8,551,200
77,854,400	72,538,200	65,798,700	48,587,400	56,452,500	47,285,700	48,193,400	35,068,100
24,685,400	29,992,200	25,765,500	26,228,700	22,428,600	25,456,700	28,893,400	25,736,900
2,682,700	4,083,700	2,586,200	4,284,600	4,825,000	6,504,100	2,605,500	8,184,500
27,348,100	34,025,900	28,851,700	30,513,800	27,251,600	31,960,800	26,498,900	28,911,400
11,773,000	17,466,500	23,951,300	20,805,400	24,373,300	27,946,400	21,865,100	21,326,500
543,900	1,142,200	405,300	772,000	483,100	907,100	463,200	752,700
12,816,900	18,608,700	24,856,900	21,577,400	24,858,400	28,838,500	21,828,300	22,079,300
14,629,400	16,462,900	16,858,900	11,387,000	13,780,200	13,317,000	11,406,300	9,244,700
115,800	173,700	105,900	173,700	198,000	154,400	57,900	173,700
14,745,200	16,636,900	16,964,700	11,560,700	18,973,200	18,471,400	11,464,200	9,418,400
5,847,400	8,163,900	7,898,700	8,103,500	8,163,900	8,549,900	7,276,100	6,987,800
849,700	945,700	948,200	948,200	772,000	1,042,200	926,400	945,700
6,967,100	9,109,600	8,620,100	9,051,700	8,985,900	9,592,100	8,302,500	7,912,000
1,100,100	2,856,400	5,230,800	3,744,200	4,053,000	4,747,800	4,868,600	10,441,300
173,700	540,400	617,600	945,700	1,312,400	1,042,200	1,910,700	1,177,300
1,273,800	3,396,800	5,847,900	4,689,900	5,865,400	5,790,000	6,774,300	11,618,600
5,461,900	5,158,100	6,785,700	5,825,100	7,411,200	4,805,700	5,172,400	3,975,800
77,200	57,900	88,600	19,300	57,900	57,900	38,600	38,600
5,539,100	5,211,000	6,774,300	5,944,400	7,469,100	4,868,600	5,211,000	4,014,400
1,505,400	1,331,700	2,316,000	4,303,900	3,435,400	4,670,600	4,265,300	9,900,900
231,600	270,200	847,400	270,200	347,400	247,400	540,400	123,200,000
1,737,900	1,601,900	2,663,400	4,574,160	3,782,800	5,018,000	4,805,700	10,653,600
		3,512,600	3,723,600	6,812,900	5,600,500	2,335,300	2,219,500
		810,600	424,600	559,700	772,000	77,200	945,700
		4,822,200	9,148,200	7,372,600	6,872,500	2,412,500	3,165,200
617,600	945,700	463,200	173,700	31,600	463,200	482,506	289,500
38,600					19,300		19,300
656,200	945,700	463,200	173,700	231,600	482,500	482,500	308,800
522,469,800	548,285,800	618,285,600	627,072,800	636,048,200	636,155,700	568,386,300	518,889,200
138,277,500	147,745,100	168,963,100	166,779,800	170,633,900	151,886,100	127,850,300	123,200,000
660,747,800	695,980,900	786,648,700	793,853,600	806,682,100	788,041,800	690,736,600	641,609,200
23,196,600	23,603,500	24,491,700	17,775,300	18,522,000	18,431,500	19,696,800	23,854,800
443,900	289,900	866,700	250,900	828,100	403,300	886,000	366,700
22,612,500	23,898,400	24,858,400	18,026,200	18,856,100	18,836,800	20,072,000	24,221,500
6,253,200	9,225,400	10,750,100	7,662,100	7,196,900	7,141,000	4,979,400	5,886,500
540,400	1,061,500	1,438,900	1,061,500	1,833,500	783,400	1,771,100	101,600
6,793,600	10,286,900	12,189,600	8,723,600	9,032,400	7,874,400	6,850,500	6,997,100

FRANCE—Continued.

Statement showing the imports

Whence imported.	1873.	1874.	1875.	1876.	1877.
<i>Continent of Africa—Continued.</i>					
<i>West Africa:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Entered for consumption	8,821,400	5,442,600	6,272,500	6,002,300	6,677,800
Transit and re-export trade	289,500	154,400	178,700	405,300	636,900
Total	4,110,900	5,597,000	6,446,200	6,407,600	7,314,700
<i>Tripoli, Tunis, and Morocco:</i>					
Entered for consumption	4,632,000	4,788,400	4,767,100	8,821,400	4,361,800
Transit and re-export trade	289,500	521,100	405,800	269,200	135,100
Total	4,921,500	5,307,500	5,172,400	4,091,600	4,496,900
<i>Senegal:</i>					
Entered for consumption	2,065,100	2,238,800	1,852,800	1,775,600	2,084,600
Transit and re-export trade	38,600	19,300	19,300	19,300	76,800
Total	2,103,700	2,258,100	1,872,100	1,794,900	2,161,400
<i>Réunion:</i>					
Entered for consumption	3,686,300	4,496,900	3,860,000	4,458,800	4,503,900
Transit and re-export trade	849,200	135,100	77,200	308,800	521,100
Total	4,535,500	4,632,000	3,937,200	4,767,100	4,825,000
<i>British Africa:</i>					
Entered for consumption	3,744,200	1,312,400	1,022,900	810,600	1,544,000
Transit and re-export trade	57,900	212,800	96,500	308,800	115,800
Total	3,802,100	1,524,700	1,119,400	1,119,400	1,659,800
<i>All other places in Africa:</i>					
Entered for consumption	1,254,500	1,100,100	1,686,100	1,158,000	1,563,300
Transit and re-export trade	38,600	135,100	282,500	19,300	212,300
Total	1,293,100	1,235,200	1,968,600	1,177,300	1,775,600
TOTAL FROM AFRICA:					
Entered for consumption	56,819,200	51,378,600	47,485,700	54,252,300	54,406,900
Transit and re-export trade	3,800,800	2,837,100	3,042,400	4,149,500	3,821,000
Total	60,119,500	54,213,700	50,508,100	58,401,800	58,227,900
<i>Continent of America.</i>					
<i>The United States:</i>					
Entered for consumption	38,503,500	46,609,500	36,708,600	51,048,500	49,755,400
Transit and re-export trade	2,443,100	1,621,200	1,042,200	2,875,700	4,342,500
Total	41,946,600	48,230,700	37,750,800	53,924,200	54,097,900
<i>The Argentine Republic:</i>					
Entered for consumption	20,284,300	18,817,500	17,549,700	21,249,300	21,946,000
Transit and re-export trade	675,500	1,737,000	810,600	1,235,200	781,500
Total	20,959,800	20,554,500	18,354,800	22,484,500	22,677,500
<i>Brazil:</i>					
Entered for consumption	10,595,700	8,897,300	9,746,500	10,672,900	10,846,600
Transit and re-export trade	7,874,400	7,276,100	10,499,200	7,970,900	7,044,500
Total	18,474,100	16,173,400	20,245,700	18,643,800	17,891,100
<i>Peru:</i>					
Entered for consumption	9,900,900	10,479,900	9,934,600	11,444,900	11,869,500
Transit and re-export trade	115,800	193,000	217,200	38,600	96,500
Total	10,016,700	10,672,900	10,151,800	11,483,500	11,966,000
<i>Uruguay:</i>					
Entered for consumption	8,067,400	7,160,300	7,662,100	7,507,700	6,291,800
Transit and re-export trade	154,400	260,900	424,600	173,700	135,100
Total	8,221,800	7,411,200	8,086,700	7,681,400	6,426,900
<i>Hayti:</i>					
Entered for consumption	6,890,100	6,214,600	7,855,100	7,970,900	5,944,400
Transit and re-export trade	1,331,700	559,700	2,817,500	1,544,000	1,447,500
Total	8,221,800	6,774,300	10,672,900	9,514,900	7,391,900
<i>Saint Pierre, Miquelon, and Grande Pêche:</i>					
Entered for consumption	5,558,400	4,902,200	4,709,200	5,056,600	5,268,900
Transit and re-export trade					57,900
Total	5,558,400	4,902,200	4,709,200	5,056,600	5,326,800
<i>Chili:</i>					
Entered for consumption	2,702,000	4,554,800	2,702,000	5,191,700	2,914,300
Transit and re-export trade	501,800	579,000	115,800	135,100	57,900
Total	3,203,800	5,133,800	2,817,800	5,326,800	2,972,200
<i>United States of Colombia:</i>					
Entered for consumption	2,354,600	1,891,400	1,910,700	1,293,100	1,524,700
Transit and re-export trade	733,400	443,900	752,700	1,128,700	1,158,000
Total	3,088,000	2,335,300	2,663,400	2,431,800	2,682,700
<i>Martinique:</i>					
Entered for consumption	3,821,400	4,149,500	4,805,700	3,744,200	3,860,000
Transit and re-export trade	328,100	405,300	579,000	212,300	521,000
Total	4,149,500	4,554,800	5,384,700	3,956,500	4,381,000
<i>Venezuela:</i>					
Entered for consumption	2,180,900	1,910,700	2,479,400	2,837,100	2,431,800
Transit and re-export trade	714,100	849,200	1,582,600	1,158,000	115,800
Total	2,895,000	2,759,900	4,058,900	3,995,100	2,547,600

FRANCE—Continued.

by countries—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
6,600,600	5,384,700	5,539,100	5,770,700	5,519,800	7,198,900	5,732,100	4,670,600
636,900	218,300	96,500	443,900	589,700	1,403,300	463,200	880,000
7,237,500	5,597,000	5,635,600	6,214,600	6,079,500	8,604,200	6,193,300	5,550,600
4,998,700	6,562,000	5,211,000	5,268,900	4,284,600	7,092,400	3,433,400	4,400,400
280,500	540,400	270,200	508,300	96,500	1,704,900	508,300	752,200
5,288,200	7,102,400	5,481,200	5,867,200	4,381,100	8,887,300	4,033,700	5,153,100
2,277,400	2,451,100	3,821,400	3,667,000	4,442,500	3,937,200	3,531,900	5,519,900
19,300	19,300	19,300	88,600	-----	19,300	88,600	10,300
2,296,700	2,470,400	3,840,700	3,705,600	4,442,500	3,956,500	3,570,500	5,539,100
4,228,700	3,454,700	3,080,100	3,088,000	3,068,700	2,985,600	1,940,300	2,145,000
388,000	658,200	863,200	289,500	501,800	212,300	675,700	231,600
4,612,700	4,110,900	3,493,300	3,377,500	3,570,500	3,147,900	2,624,800	3,377,500
1,408,900	1,370,300	1,022,900	1,100,100	810,600	1,447,500	945,700	1,488,000
193,000	928,400	886,700	521,100	508,800	530,400	630,900	177,600
1,601,900	2,264,700	1,389,600	1,621,200	1,319,400	1,977,900	1,582,600	2,108,700
1,293,100	1,833,500	2,103,700	2,206,700	1,814,200	1,466,800	840,200	2,084,400
424,600	482,500	20,300	193,000	368,700	250,900	701,300	10,300
1,717,700	2,316,000	2,124,000	2,489,700	2,180,900	1,717,700	1,640,500	2,103,700
50,257,200	53,885,200	55,907,000	46,628,800	45,667,300	49,650,000	41,109,000	51,048,500
2,983,600	4,188,500	3,011,800	3,396,800	4,195,100	5,351,800	5,430,900	8,203,100
53,190,800	58,073,700	59,011,800	50,025,600	49,862,400	55,002,700	48,569,900	64,252,300
94,087,500	188,268,700	141,063,000	97,735,200	76,962,600	68,206,200	53,943,500	51,766,700
6,416,200	6,330,400	7,070,900	7,023,200	8,817,900	4,940,800	1,940,300	5,096,700
100,583,700	144,598,100	149,053,900	104,760,400	80,770,500	73,147,000	55,892,800	56,866,400
26,844,500	25,977,800	27,772,700	24,839,100	31,629,200	37,863,800	37,828,000	37,943,800
675,500	1,003,600	868,500	984,300	943,700	636,200	424,600	443,900
37,020,000	26,981,400	28,641,200	25,823,400	32,574,900	38,020,000	38,252,600	38,387,700
10,962,400	10,015,000	10,113,200	10,923,800	9,147,500	11,637,900	9,476,300	9,668,600
8,453,400	9,109,600	5,651,900	14,006,200	9,978,100	12,583,600	10,108,000	10,056,000
19,415,800	19,724,600	15,768,100	23,932,000	10,145,600	24,221,500	20,284,300	19,724,600
7,565,600	9,989,500	3,763,500	4,476,600	6,279,500	5,211,000	6,990,600	3,975,800
77,200	-----	96,500	-----	321,100	96,500	212,800	171,700
7,643,800	9,989,500	3,860,000	4,476,600	6,600,600	5,307,500	7,198,900	4,148,500
5,944,400	6,238,900	6,504,100	6,563,000	6,639,200	5,761,400	6,137,400	7,338,800
868,700	77,200	19,300	57,900	212,800	77,200	115,800	157,400
6,311,100	6,311,100	6,523,400	6,619,900	6,851,500	5,828,600	6,253,200	7,510,700
5,790,000	6,388,200	6,523,400	6,446,200	6,079,500	6,060,200	5,967,200	5,770,700
1,985,400	1,679,100	1,196,600	2,860,000	1,603,600	3,126,000	2,870,200	2,891,000
7,468,400	8,067,400	7,720,000	10,306,200	7,063,100	9,186,800	6,137,400	8,065,500
5,133,800	4,458,800	4,226,700	4,458,300	4,940,800	5,442,000	5,074,200	6,369,000
57,900	19,300	57,900	96,500	-----	96,500	115,800	151,400
5,191,700	4,477,600	4,264,600	4,554,800	4,940,800	5,539,100	5,790,000	6,523,400
2,914,300	4,284,600	6,187,400	5,307,500	4,188,800	5,268,900	4,458,800	2,200,200
115,600	185,100	77,200	173,700	115,800	173,700	96,500	135,100
3,030,100	4,419,700	6,214,600	5,481,200	4,284,600	5,442,000	4,654,800	2,385,200
1,679,100	2,692,700	2,759,900	3,628,400	3,628,400	2,528,300	2,335,800	2,277,400
807,100	2,200,200	2,675,700	2,294,700	2,258,100	1,659,900	1,601,400	1,116,900
2,584,200	4,882,900	5,635,600	5,925,100	5,886,500	4,168,100	4,226,700	3,493,900
3,612,600	4,709,200	4,110,900	4,033,700	5,183,800	4,168,800	3,724,900	5,236,200
465,800	115,000	617,600	521,100	636,900	270,200	482,500	808,000
3,917,900	4,825,000	4,728,500	4,554,800	5,770,700	4,439,000	4,207,400	5,589,100
3,049,400	2,856,400	2,759,900	2,856,400	2,856,400	3,647,700	3,068,700	3,068,000
1,100,100	1,138,700	1,017,600	714,100	1,253,100	1,408,900	570,600	405,300
4,149,500	3,965,100	3,777,500	3,570,500	4,149,500	5,056,600	3,647,700	3,493,300

FRANCE—Continued.

Statement showing the

Whence imported.	1873.	1874.	1875.	1876.	1877.
<i>Continent of America—Continued.</i>					
<i>Guadeloupe:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Entered for consumption	4,053,000	2,952,900	3,435,400	2,952,900	4,014,400
Transit and re-export trade	212,300	57,900	829,900	38,600	154,400
Total	4,265,300	3,010,800	4,265,300	2,991,500	4,168,800
<i>Spanish America:</i>					
Entered for consumption	4,554,800	4,458,300	7,256,800	4,844,300	2,682,700
Transit and re-export trade	77,200	38,600	887,800	328,100	521,100
Total	4,632,000	4,496,900	8,144,600	5,172,400	3,203,800
<i>British America:</i>					
Entered for consumption	231,600	617,600	405,300	926,400	1,737,000
Transit and re-export trade	403,200	829,900	347,400	281,600	88,600
Total	694,800	1,447,500	752,700	1,158,000	1,775,600
<i>Mexico:</i>					
Entered for consumption	945,700	1,293,100	1,756,300	1,659,800	1,188,700
Transit and re-export trade	231,600	173,700	617,600	281,600	115,800
Total	1,177,200	1,466,800	2,373,900	2,065,100	1,254,500
<i>Guatemala:</i>					
Entered for consumption	98,500	231,600	115,800	270,200	231,600
Transit and re-export trade	173,700	115,800	57,900	135,100	10,300
Total	270,200	347,400	173,700	405,300	250,900
<i>All other places in America:</i>					
Entered for consumption	173,700	289,500	386,000	559,700	656,200
Transit and re-export trade	98,500	385,500	386,000	714,100	38,600
Total	270,200	675,500	772,000	1,273,800	694,800
TOTAL FROM AMERICA:					
Entered for consumption	120,914,500	125,430,700	119,404,200	139,230,200	133,114,000
Transit and re-export trade	16,526,800	15,516,700	21,968,800	18,335,000	16,596,000
Total	137,441,300	140,947,400	141,372,500	157,565,200	149,710,000
<i>Continent of Asia.</i>					
<i>British India:</i>					
Entered for consumption	14,861,000	20,187,800	24,963,500	23,904,200	28,833,500
Transit and re-export trade	2,180,900	2,238,800	8,800,000	3,010,800	2,014,900
Total	17,041,900	22,426,600	33,763,500	26,915,000	31,777,800
<i>China:</i>					
Entered for consumption	10,074,600	14,571,500	17,099,800	27,174,400	7,063,800
Transit and re-export trade	8,049,400	1,775,600	675,500	3,203,800	6,774,200
Total	18,124,000	16,347,100	17,775,300	30,378,200	13,838,100
<i>Japan:</i>					
Entered for consumption	3,917,900	3,840,700	3,068,700	7,063,800	2,624,900
Transit and re-export trade	8,453,400	12,911,700	11,502,800	11,251,900	6,407,000
Total	12,371,300	16,752,400	14,571,500	18,315,700	9,032,400
<i>French India:</i>					
Entered for consumption	2,161,600	598,300	1,466,800	772,000	270,200
Transit and re-export trade	636,900	738,400	38,600	103,000	808,800
Total	2,798,500	1,336,700	1,505,400	875,000	579,000
<i>Dutch India:</i>					
Entered for consumption	1,177,300	1,408,900	1,717,700	2,451,100	6,928,700
Transit and re-export trade	636,900	868,500	77,200	308,800	482,500
Total	1,814,200	2,277,400	1,794,900	2,759,900	7,411,200
<i>Cochin China and Tonquin:</i>					
Entered for consumption .....	.....	.....	366,700	424,600	405,300
Transit and re-export trade .....	.....	.....	59,900	38,600	231,600
Total .....	.....	.....	426,600	463,200	636,900
<i>The Philippines:</i>					
Entered for consumption	19,300	193,000	250,900	386,000	463,200
Transit and re-export trade	421,000	173,700	463,200	57,900	135,100
Total	440,300	366,700	714,100	443,900	598,300
<i>All other places in Asia:</i>					
Entered for consumption	714,100	1,061,500	366,700	347,400	810,600
Transit and re-export trade	135,100	77,200	.....	19,300	57,700
Total	849,200	1,138,700	366,700	366,700	868,500
TOTAL FROM ASIA:					
Entered for consumption	82,925,800	41,861,700	49,330,800	65,523,500	47,420,100
Transit and re-export trade	15,517,200	18,778,900	16,077,200	18,084,100	17,812,100
Total	98,443,000	60,640,600	65,408,000	83,607,600	65,232,200
<i>Australasia.</i>					
<i>Australasia:</i>					
Entered for consumption	250,900	115,800	.....	57,900	.....
Transit and re-export trade .....	.....	.....	.....	.....	38,600
Total	250,900	115,800	.....	57,900	38,600
GRAND TOTAL IMPORTS:					
Entered for consumption	686,076,400	676,988,100	682,583,100	769,761,200	708,271,400
Transit and re-export trade	197,001,100	176,556,400	178,544,300	177,637,200	173,719,300
Total	883,077,500	853,544,500	861,127,400	947,398,400	881,990,700

FRANCE—Continued.

Imports by countries—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
3,647,700	3,667,000	3,995,100	3,783,500	5,230,300	3,513,600	3,049,400	4,168,800
822,100	308,800	231,600	368,700	193,000	98,500	270,200	88,600
3,975,800	3,975,800	4,226,700	4,150,200	5,423,300	3,609,100	3,319,600	4,207,400
2,798,500	3,095,100	3,128,600	2,509,000	2,509,000	2,026,500	2,123,000	2,123,000
77,200	1,042,200	154,400	57,900	154,400	733,400	96,500	482,500
2,875,700	3,087,300	3,281,000	2,566,900	2,663,400	2,759,900	2,219,500	2,605,500
1,967,900	1,408,900	2,528,300	1,775,600	2,103,700	1,235,200	1,022,900	907,100
424,600	57,900	221,600	405,300	482,500	453,200	463,200	568,300
2,412,500	1,466,800	2,759,900	2,180,900	2,586,200	1,683,400	1,486,100	1,505,400
1,022,900	1,447,500	1,498,100	1,505,400	1,515,400	1,351,000	772,000	964,900
193,000	96,500	193,000	77,200	279,500	193,000	231,600	212,300
1,215,900	1,544,900	1,679,100	1,582,600	1,794,900	1,544,000	1,003,600	1,196,600
323,100	521,100	521,100	579,000	544,400	849,200	772,000	887,900
115,800	96,500	154,400	19,300	-----	19,300	19,300	77,200
443,900	617,900	675,500	598,300	540,400	868,500	791,300	965,000
250,900	501,900	559,700	540,400	405,300	250,900	463,200	308,800
270,200	289,500	308,800	193,000	38,600	77,200	212,300	868,700
521,100	791,900	898,600	733,400	443,900	323,100	675,500	675,500
177,919,600	227,955,900	227,971,800	181,940,100	169,779,800	160,512,200	147,702,900	145,032,600
21,713,500	29,726,400	21,728,500	29,857,100	21,730,600	30,662,600	18,233,500	22,810,800
196,732,100	251,686,200	249,698,100	211,797,200	191,510,400	191,174,800	165,941,400	167,844,400
26,883,100	24,356,600	30,080,800	43,116,200	40,452,800	47,478,000	44,621,600	37,963,100
964,900	2,523,800	8,145,900	5,283,200	7,623,500	7,568,600	4,072,300	3,896,600
27,867,400	26,884,900	33,176,700	48,404,400	48,076,300	55,043,600	48,698,900	41,961,700
18,026,200	18,412,200	19,473,700	18,585,900	17,022,600	16,885,700	16,791,000	12,120,400
6,968,600	6,890,100	11,136,100	8,495,600	10,325,500	9,148,200	10,943,100	5,965,400
27,020,000	25,502,800	30,609,800	27,081,500	27,348,100	25,588,900	27,734,100	17,435,900
5,790,000	5,905,800	4,439,000	8,511,300	8,627,100	7,913,000	6,677,000	5,654,90
2,637,100	3,300,800	1,423,200	829,900	1,949,300	791,800	1,062,800	675,50
8,617,100	9,206,100	5,867,200	9,341,200	10,576,400	8,704,000	7,739,900	6,330,40
154,400	984,300	1,698,400	1,177,300	1,987,900	1,910,700	3,281,000	3,551,200
483,500	598,300	443,900	598,300	675,500	752,700	887,900	1,408,900
636,900	1,582,600	2,142,300	1,775,600	2,063,400	2,063,400	4,168,800	4,958,100
4,746,000	3,782,800	6,562,000	5,249,600	7,141,000	4,130,200	3,724,900	9,611,400
57,900	270,200	231,600	250,900	752,700	250,900	202,300	1,134,900
4,303,900	4,053,000	6,793,600	5,500,500	7,803,700	4,381,100	3,927,200	10,746,800
173,700	598,300	791,800	516,100	617,600	521,100	1,756,300	540,400
57,900	38,600	135,100	236,600	193,000	77,200	88,600	135,100
231,600	636,900	926,400	752,700	810,600	598,300	1,794,900	675,500
154,400	443,900	501,900	347,400	231,600	617,600	752,700	386,000
193,000	386,000	580,000	386,000	443,900	405,300	269,200	270,200
347,400	329,900	1,061,900	733,400	675,500	1,022,900	1,021,900	656,200
115,800	154,400	38,600	-----	-----	96,500	173,700	1,061,500
38,600	-----	-----	19,300	-----	-----	-----	173,700
154,400	154,400	38,600	19,300	-----	96,500	173,700	1,235,200
55,043,600	54,638,300	63,585,600	77,503,800	76,080,600	79,052,800	77,773,200	70,888,900
13,644,700	14,011,900	17,080,800	16,104,800	21,933,400	13,991,200	17,475,600	13,080,300
63,688,300	68,650,100	80,616,400	93,608,600	98,044,000	98,044,000	95,258,800	83,940,200
193,000	1,949,300	4,043,000	4,607,800	4,091,000	1,235,200	6,118,100	2,547,600
289,500	115,800	96,500	323,100	193,000	1,466,800	2,161,600	2,412,500
482,500	2,065,100	4,139,500	4,935,900	4,284,600	2,702,000	3,279,700	4,960,100
908,006,600	838,873,600	971,407,600	938,636,200	930,607,400	927,229,900	838,295,500	789,061,200
176,151,100	180,931,800	208,401,400	218,630,400	220,070,300	208,903,200	172,831,500	162,428,800
982,157,700	1,077,804,900	1,179,809,000	1,157,266,600	1,150,646,700	1,136,133,100	1,011,127,000	951,490,000

FRANCE—Continued.

Statement showing the

Whither exported.	1873.	1874.	1875.	1876.	1877.
<i>Continent of Europe.</i>					
United Kingdom:	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
French products.....	177,858,500	196,510,300	205,989,600	199,407,600	204,887,600
Foreign products.....	48,855,300	47,400,800	43,632,700	47,295,000	51,193,600
Total.....	226,713,800	237,911,100	248,622,300	246,692,600	255,570,600
Belgium:					
French products.....	90,748,600	101,054,800	101,749,600	86,020,100	86,155,200
Foreign products.....	6,677,800	6,542,700	6,649,200	8,588,500	9,657,900
Total.....	97,426,400	107,597,500	108,398,800	94,608,600	95,813,100
Germany:					
French products.....	89,416,900	79,824,800	82,891,700	88,221,600	76,254,300
Foreign products.....	11,425,600	7,918,000	7,604,200	7,835,800	7,141,000
Total.....	100,842,500	87,737,800	89,995,900	91,057,400	83,395,300
Switzerland:					
French products.....	65,079,600	57,842,100	60,833,600	57,707,000	45,779,600
Foreign products.....	17,910,400	17,119,100	15,169,800	15,208,400	13,220,500
Total.....	82,990,000	74,961,200	76,003,400	72,915,400	59,000,100
Italy:					
French products.....	44,851,400	39,410,600	42,209,100	41,649,400	35,801,500
Foreign products.....	23,816,200	23,147,900	24,964,900	29,104,400	21,898,200
Total.....	68,667,600	62,558,500	67,174,000	70,753,800	57,699,700
Spain:					
French products.....	21,249,300	26,865,000	27,135,800	29,818,500	25,572,500
Foreign products.....	13,046,800	16,019,000	15,181,200	17,485,800	18,708,000
Total.....	34,296,100	42,884,000	42,267,000	47,304,300	39,275,500
Turkey:					
French products.....	16,192,700	15,826,000	14,690,800	8,974,500	7,063,800
Foreign products.....	7,720,000	8,820,100	6,696,600	5,577,700	4,861,800
Total.....	23,912,700	24,646,100	21,191,400	14,552,200	11,425,600
Holland:					
French products.....	6,407,600	6,618,500	9,688,600	7,932,300	6,703,600
Foreign products.....	1,003,600	1,293,100	1,370,800	1,698,400	1,924,700
Total.....	7,411,200	7,951,600	11,059,400	9,630,700	8,718,300
Portugal:					
French products.....	4,149,500	4,073,300	4,902,200	4,940,800	4,554,800
Foreign products.....	1,196,600	1,370,800	1,582,600	1,254,500	1,891,400
Total.....	5,346,100	5,442,600	6,484,800	6,195,300	6,446,200
Austria:					
French products.....	3,838,900	3,952,900	4,130,200	3,300,300	3,937,200
Foreign products.....	1,003,600	1,254,500	866,700	347,400	405,300
Total.....	4,842,500	4,207,400	4,996,900	3,647,700	4,342,500
Greece:					
French products.....	2,952,900	3,010,800	3,435,400	2,682,700	2,933,600
Foreign products.....	598,300	752,700	738,400	752,700	807,800
Total.....	3,551,000	3,763,500	4,163,800	3,435,400	3,821,400
Russia:					
French products.....	7,835,800	6,967,800	9,128,900	6,677,800	3,068,700
Foreign products.....	1,042,200	1,621,200	2,046,800	1,293,100	579,000
Total.....	8,878,000	8,589,000	11,174,700	7,970,900	3,647,700
Roumania:					
French products.....					
Foreign products.....					
Total.....					
Denmark:					
French products.....	791,300	926,400	1,951,000	1,090,800	926,400
Foreign products.....	675,500	289,500	231,600	154,400	77,200
Total.....	1,466,800	1,215,900	1,582,600	1,235,200	1,003,600
Sweden:					
French products.....	2,103,700	2,180,000	2,547,600	2,529,300	2,358,100
Foreign products.....	212,300	193,000	308,800	323,100	308,800
Total.....	2,316,000	2,373,000	2,856,400	2,856,400	2,666,900
Norway:					
French products.....	2,065,100	2,835,800	2,045,800	2,451,100	2,412,500
Foreign products.....	154,400	57,900	173,700	103,000	135,100
Total.....	2,219,500	2,893,200	2,219,500	2,554,100	2,547,600
Malta and Gibraltar:					
French products.....	887,800	1,022,900	1,273,900	945,700	849,200
Foreign products.....	1,698,400	2,932,900	3,107,900	1,003,600	1,003,600
Total.....	2,586,200	3,975,800	4,381,800	1,949,300	1,852,800
TOTAL TO EUROPE:					
French products.....	535,227,600	541,461,500	573,883,700	539,838,500	508,748,000
Foreign products.....	128,837,000	133,747,700	128,668,900	133,110,400	128,368,900
Total.....	672,064,600	680,209,200	702,047,500	677,449,800	637,114,900

FRANCE—Continued.

Exports by countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
176 672,200	160,228,600	175,743,200	173,375,400	185,588,800	174,394,800	162,504,000	160,112,800
43,183,500	42,086,800	49,543,100	40,742,300	37,229,700	88,890,500	85,241,800	25,012,800
219,807,700	202,325,400	225,286,900	214,017,700	222,818,500	210,775,300	197,747,800	185,125,000
79,073,100	82,874,200	89,850,000	88,240,000	88,239,600	90,980,200	88,181,700	84,388,900
7,005,900	12,641,500	13,876,700	12,832,300	11,715,100	13,978,200	11,792,800	11,502,800
86,078,000	95,515,700	108,235,700	100,572,300	99,954,700	104,933,400	99,974,000	93,901,700
68,334,100	68,295,500	70,030,700	73,919,000	65,888,400	62,918,000	63,284,700	57,977,200
5,867,200	7,121,700	5,903,800	6,793,600	7,932,300	9,188,800	9,308,100	7,797,200
72,201,300	72,417,200	75,945,500	80,712,600	73,320,700	72,104,800	72,490,800	65,774,400
44,274,200	47,574,500	42,587,200	46,809,000	48,057,000	44,235,600	42,151,300	38,382,000
10,338,600	23,970,000	23,556,800	28,216,800	21,249,300	16,783,100	17,582,300	15,823,000
63,612,800	71,545,100	69,094,000	75,115,600	69,806,300	60,968,700	60,783,500	52,204,500
32,752,100	34,817,200	34,990,900	40,568,600	38,677,200	34,122,400	33,187,400	34,218,900
19,212,900	22,880,100	22,819,800	28,914,200	26,190,100	21,403,700	21,624,400	15,903,200
51,994,200	57,147,300	59,810,700	69,482,800	64,867,800	55,526,100	50,681,900	50,122,100
22,558,800	28,872,800	30,629,100	32,327,500	30,418,800	33,080,200	29,548,800	31,343,200
14,185,500	15,517,200	15,694,500	16,887,500	24,491,700	6,098,800	5,597,000	4,863,600
40,742,300	44,890,000	47,323,600	49,215,000	54,908,500	56,394,600	44,718,100	47,709,600
11,039,600	11,522,100	8,781,500	7,835,800	8,492,000	8,935,900	9,051,700	9,011,400
7,430,500	8,704,300	6,658,500	7,121,700	6,465,500	6,098,800	5,597,000	4,863,600
18,470,100	20,226,400	15,440,900	14,957,500	14,957,500	15,034,700	14,648,700	14,475,000
6,021,600	8,637,100	7,237,500	8,839,400	8,607,800	7,121,700	6,000,600	7,218,200
2,219,500	2,219,500	2,583,200	2,583,200	2,219,500	2,586,200	2,721,800	2,856,400
8,241,100	10,846,600	8,820,100	11,174,700	10,827,300	9,707,900	9,321,900	10,074,600
3,037,200	3,628,400	3,802,100	3,705,900	3,531,200	3,831,400	4,323,200	3,937,200
1,273,800	1,058,500	1,408,900	945,700	1,235,200	886,500	4,828,600	752,700
5,211,000	4,687,000	5,211,000	4,651,300	4,786,400	4,707,900	4,747,800	4,689,900
4,921,500	4,110,900	5,550,500	6,166,700	6,040,900	5,211,000	3,917,900	3,010,800
424,500	328,100	378,100	356,700	579,000	1,447,500	540,400	540,400
5,346,000	4,439,000	5,928,600	6,528,400	6,619,900	6,656,500	4,458,300	2,561,200
2,779,200	2,451,100	3,184,500	5,633,600	2,759,800	3,068,700	2,298,700	2,084,400
579,000	920,400	694,800	1,191,000	810,000	1,100,100	791,800	714,100
3,358,200	3,377,500	3,879,300	1,832,200	3,570,500	4,168,800	3,088,000	2,798,500
5,790,000	6,600,600	6,562,000	5,712,800	5,925,100	4,842,500	2,598,200	2,451,100
1,235,200	1,119,400	1,370,300	984,300	926,400	656,200	443,100	501,300
7,025,200	7,720,000	7,932,300	6,697,100	6,851,500	4,998,700	3,029,800	2,952,400
-----	-----	675,500	1,196,600	1,659,800	1,408,800	1,381,700	656,200
-----	-----	231,600	424,600	328,100	540,400	443,900	270,200
-----	-----	907,100	1,621,200	1,987,900	2,007,200	1,775,600	926,400
1,080,800	926,400	1,196,600	1,582,600	1,061,500	1,351,000	1,389,600	1,466,800
57,900	57,900	115,800	38,600	38,600	96,500	178,700	115,800
1,128,700	984,300	1,312,400	1,621,200	1,100,100	1,447,500	1,563,800	1,582,600
1,158,000	1,215,900	1,544,000	1,698,400	1,215,900	1,331,700	1,331,700	1,408,900
212,300	125,100	115,800	115,800	231,600	154,400	212,800	196,500
1,370,300	1,351,000	1,659,800	1,814,200	1,447,500	1,486,100	1,544,000	1,605,400
1,496,100	945,700	2,184,400	2,682,700	1,235,200	1,428,200	1,408,900	964,300
154,400	193,000	15,800	115,800	180,100	164,400	96,500	38,600
1,640,500	1,188,700	2,200,200	2,798,500	1,421,300	1,582,600	1,505,400	1,022,900
791,300	753,700	617,600	656,200	772,000	579,000	405,300	501,800
1,196,600	1,022,900	540,400	675,500	829,900	617,600	443,900	347,400
1,987,900	1,775,600	1,158,000	1,331,700	1,001,900	1,196,600	849,200	849,200
464,608,800	461,445,700	484,638,300	500,941,800	497,689,100	478,389,100	458,462,800	437,764,700
123,558,600	139,442,000	150,509,300	148,197,200	142,654,600	185,390,300	118,414,700	103,603,300
588,226,400	600,887,700	635,147,600	649,139,000	640,347,700	613,719,400	571,877,600	541,368,000

FRANCE—Continued.

Statement showing the exports

Whither exported.	1873.	1874.	1875.	1876.	1877.
<i>Continent of Africa.</i>					
<i>Algeria:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
French products.....	27,077,900	23,170,800	23,197,300	23,660,500	23,653,300
Foreign products.....	3,917,900	4,825,000	4,234,600	4,093,000	3,696,300
Total.....	30,995,800	30,995,800	32,481,900	32,753,500	30,349,600
<i>Egypt:</i>					
French products.....	8,583,500	7,534,900	8,125,300	5,597,000	4,805,700
Foreign products.....	2,277,400	1,544,000	1,273,800	1,423,200	1,215,900
Total.....	10,865,900	9,123,900	9,399,100	7,025,200	6,021,600
<i>Barbary States:</i>					
French products.....	2,489,700	2,798,500	2,644,100	1,930,000	2,258,100
Foreign products.....	907,100	1,331,700	1,003,600	887,800	965,000
Total.....	3,396,800	4,130,200	3,647,700	2,817,800	3,223,100
<i>Senegal:</i>					
French products.....	907,100	887,800	920,400	926,400	945,700
Foreign products.....	1,331,700	1,196,600	1,351,000	1,423,200	1,814,200
Total.....	2,238,800	2,084,400	2,277,400	2,354,600	2,759,900
<i>British Africa:</i>					
French products.....	2,023,500	1,679,100	1,273,800	791,300	1,582,600
Foreign products.....	212,300	250,900	347,400	752,700	308,800
Total.....	2,238,800	1,930,000	1,621,200	1,544,000	1,891,400
<i>Réunion:</i>					
French products.....	2,065,100	2,103,700	1,601,900	1,659,800	1,563,800
Foreign products.....	250,900	289,500	154,400	250,900	366,700
Total.....	2,316,000	2,393,200	1,756,300	1,910,700	1,930,500
<i>West coast of Africa:</i>					
French products.....	1,833,500	1,447,500	1,563,800	675,500	579,000
Foreign products.....	579,000	617,600	540,400	540,400	810,600
Total.....	2,412,500	2,065,100	2,103,700	1,215,900	1,389,600
<i>All other places in Africa:</i>					
French products.....	250,900	323,100	231,000	231,000	193,000
Foreign products.....	212,300	250,900	388,000	135,100	135,100
Total.....	463,200	579,000	617,000	366,700	328,100
TOTAL TO AFRICA:					
French products.....	45,239,200	43,000,400	44,563,700	40,472,100	38,580,700
Foreign products.....	9,683,600	10,305,200	9,341,200	9,516,300	9,302,600
Total.....	54,927,800	53,305,600	53,904,900	49,988,400	47,883,300
<i>Continent of America.</i>					
<i>The United States:</i>					
French products.....	56,320,900	57,205,200	51,029,200	44,312,300	40,403,800
Foreign products.....	17,754,000	15,575,100	18,547,800	17,698,100	21,047,400
Total.....	73,976,900	72,780,300	69,576,500	62,010,900	61,451,200
<i>Argentine Republic:</i>					
French products.....	18,489,400	10,904,500	14,373,500	10,209,700	14,610,100
Foreign products.....	4,960,100	3,358,200	2,373,900	1,659,800	1,872,100
Total.....	23,449,500	14,262,700	16,747,400	11,869,500	16,482,200
<i>Brazil:</i>					
French products.....	13,915,300	13,027,500	14,127,600	15,710,200	14,913,900
Foreign products.....	3,684,300	3,049,400	3,623,400	2,219,500	2,547,600
Total.....	17,601,600	16,076,900	17,756,000	17,929,700	17,466,500
<i>United States of Colombia:</i>					
French products.....	5,809,300	3,937,200	3,667,000	3,379,300	3,416,100
Foreign products.....	1,852,800	598,300	656,200	694,800	1,003,600
Total.....	7,662,100	4,535,500	4,323,200	4,074,100	4,419,700
<i>Mexico:</i>					
French products.....	3,454,700	3,165,200	3,396,800	2,219,500	3,551,200
Foreign products.....	2,180,900	1,196,600	1,273,800	636,900	1,359,600
Total.....	5,635,600	4,361,800	4,670,600	2,856,400	4,910,800
<i>Uruguay:</i>					
French products.....	7,063,800	4,593,400	2,720,300	3,435,400	3,995,100
Foreign products.....	2,566,900	1,003,600	676,500	810,600	810,600
Total.....	9,630,700	5,597,000	3,396,800	4,246,000	4,805,700
<i>Chili:</i>					
French products.....	8,373,000	7,314,700	6,021,600	5,481,200	4,496,900
Foreign products.....	3,165,200	1,621,200	1,119,400	1,312,400	733,400
Total.....	12,043,200	8,935,900	7,141,000	6,793,600	5,230,300
<i>St. Thomas:</i>					
French products.....	1,594,700	2,296,700	2,161,600	1,640,500	2,103,700
Foreign products.....	212,300	212,300	154,400	193,000	463,200
Total.....	1,807,000	2,509,000	2,316,000	1,833,500	2,566,900
<i>Guadeloupe:</i>					
French products.....	2,523,300	2,354,600	2,354,600	1,949,300	2,161,600
Foreign products.....	675,500	521,100	549,200	521,100	714,100
Total.....	3,203,800	2,875,700	2,903,800	2,470,400	2,875,700

FRANCE—Continued.

by countries—Continued.

1872.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
24, 877, 700	28, 584, 900	31, 327, 400	31, 053, 700	31, 9, 2, 200	29, 818, 500	28, 812, 100	32, 888, 100
5, 075, 900	6, 272, 500	6, 176, 000	6, 888, 800	8, 358, 900	8, 530, 900	8, 843, 000	4, 518, 200
29, 953, 600	33, 157, 400	37, 403, 400	37, 442, 000	40, 279, 100	33, 349, 100	35, 261, 100	36, 982, 900
5, 616, 300	5, 807, 500	7, 237, 500	5, 803, 800	3, 998, 800	4, 651, 300	3, 953, 500	4, 554, 800
1, 403, 900	1, 872, 100	1, 672, 100	2, 065, 100	1, 910, 700	2, 141, 800	2, 280, 900	2, 180, 900
7, 023, 200	7, 179, 600	9, 109, 600	7, 970, 800	5, 808, 300	6, 792, 600	6, 237, 400	6, 735, 700
2, 180, 900	2, 200, 200	1, 949, 800	2, 586, 200	4, 033, 700	4, 823, 200	3, 185, 200	4, 130, 200
1, 254, 500	1, 423, 200	907, 100	1, 153, 000	1, 814, 200	1, 556, 500	1, 640, 500	1, 910, 700
3, 435, 400	3, 623, 400	2, 856, 400	3, 744, 200	5, 847, 900	5, 879, 500	4, 805, 700	6, 040, 900
945, 700	1, 196, 600	1, 505, 400	1, 794, 800	1, 505, 400	1, 659, 800	1, 794, 900	1, 737, 000
1, 872, 100	2, 413, 500	2, 200, 200	2, 123, 000	2, 893, 200	3, 396, 800	2, 983, 600	3, 819, 600
2, 817, 800	3, 610, 100	3, 703, 600	3, 917, 900	3, 808, 600	5, 056, 600	4, 723, 500	5, 068, 600
2, 103, 700	2, 142, 800	1, 679, 100	1, 717, 700	1, 949, 300	1, 852, 800	1, 659, 800	1, 273, 800
808, 800	323, 100	231, 600	714, 100	501, 800	791, 900	598, 900	823, 100
2, 412, 500	2, 470, 400	1, 910, 700	2, 431, 800	2, 461, 100	2, 644, 100	2, 253, 100	1, 601, 900
1, 872, 100	1, 423, 200	1, 775, 600	1, 544, 000	1, 621, 200	1, 505, 400	1, 812, 400	1, 293, 100
424, 600	421, 800	617, 600	501, 800	270, 200	289, 500	303, 800	270, 200
2, 293, 700	1, 852, 900	2, 393, 300	2, 045, 800	1, 891, 400	1, 794, 900	1, 621, 300	1, 583, 300
443, 900	579, 000	501, 800	386, 000	481, 500	443, 900	589, 300	135, 100
633, 900	981, 800	984, 300	823, 100	843, 400	270, 200	154, 400	173, 700
1, 080, 900	1, 563, 300	1, 486, 100	714, 100	829, 900	714, 100	743, 700	803, 900
231, 600	323, 100	405, 800	366, 700	636, 900	366, 700	96, 500	347, 400
212, 800	193, 000	173, 700	135, 100	154, 400	866, 700	270, 200	173, 700
443, 900	521, 100	579, 000	501, 800	791, 300	733, 400	366, 700	521, 100
38, 271, 900	40, 066, 700	46, 281, 400	45, 355, 000	44, 048, 800	44, 621, 600	40, 887, 700	45, 837, 500
11, 194, 000	13, 910, 300	13, 163, 600	13, 418, 500	15, 749, 800	17, 842, 700	15, 134, 700	12, 873, 100
49, 465, 900	53, 983, 000	59, 444, 000	58, 763, 500	61, 798, 600	61, 964, 800	56, 022, 400	58, 710, 600
40, 023, 200	53, 806, 600	64, 114, 600	61, 538, 300	70, 445, 000	67, 569, 300	53, 194, 300	49, 060, 600
19, 063, 400	23, 353, 000	30, 571, 200	28, 120, 100	32, 559, 100	29, 760, 600	26, 727, 000	28, 391, 600
59, 096, 600	76, 659, 800	94, 685, 800	89, 706, 400	103, 004, 100	97, 829, 900	79, 921, 300	72, 452, 200
12, 909, 600	14, 108, 300	16, 327, 800	13, 624, 506	19, 801, 800	20, 380, 800	23, 005, 600	18, 486, 400
1, 963, 600	2, 486, 700	2, 933, 600	4, 496, 900	6, 002, 800	4, 516, 200	4, 256, 000	7, 063, 800
14, 938, 200	16, 595, 000	19, 261, 400	23, 121, 400	25, 804, 100	24, 897, 000	27, 261, 600	26, 553, 200
13, 336, 300	13, 633, 700	14, 706, 600	14, 282, 000	11, 985, 800	12, 853, 800	12, 062, 500	10, 537, 100
1, 949, 300	1, 910, 700	3, 917, 200	3, 821, 400	4, 805, 700	2, 798, 500	3, 377, 500	1, 968, 600
15, 285, 600	15, 594, 400	18, 643, 800	18, 103, 400	16, 791, 000	15, 662, 300	15, 440, 000	12, 523, 700
4, 033, 700	4, 303, 900	4, 091, 609	5, 036, 200	4, 689, 900	4, 825, 000	5, 288, 200	4, 207, 400
1, 080, 600	1, 371, 300	1, 698, 400	1, 219, 400	1, 273, 800	1, 158, 000	1, 872, 100	1, 852, 800
5, 114, 500	5, 675, 200	5, 790, 000	6, 214, 600	5, 963, 700	5, 983, 000	7, 100, 300	6, 060, 200
3, 396, 800	2, 663, 400	3, 435, 400	4, 400, 400	5, 384, 700	4, 593, 400	4, 033, 700	3, 531, 900
2, 875, 000	2, 489, 200	2, 626, 800	4, 591, 400	4, 728, 500	5, 191, 700	2, 547, 600	2, 451, 100
6, 271, 800	5, 153, 100	6, 062, 200	8, 091, 800	10, 113, 200	9, 785, 100	6, 581, 300	5, 983, 000
3, 551, 200	4, 091, 600	4, 053, 000	4, 149, 500	4, 091, 600	3, 628, 400	3, 937, 200	3, 396, 800
580, 800	617, 600	675, 500	868, 500	1, 544, 000	1, 100, 100	1, 408, 900	965, 000
4, 132, 000	4, 709, 200	4, 728, 500	5, 018, 000	5, 635, 600	4, 724, 500	5, 346, 100	4, 361, 800
3, 338, 900	2, 258, 100	3, 435, 400	5, 249, 600	5, 809, 300	5, 307, 500	3, 860, 000	2, 816, 000
617, 600	886, 000	463, 200	1, 119, 400	2, 972, 100	1, 582, 600	965, 000	926, 400
3, 956, 500	2, 044, 100	3, 898, 600	6, 369, 000	8, 781, 500	6, 890, 100	4, 825, 000	3, 242, 400
2, 856, 400	2, 566, 800	4, 612, 700	3, 995, 100	2, 856, 400	2, 798, 500	3, 396, 800	1, 872, 100
347, 400	443, 900	810, 600	636, 900	482, 500	579, 000	559, 700	250, 900
3, 203, 800	3, 010, 800	5, 423, 300	4, 632, 000	3, 338, 900	3, 377, 500	3, 956, 500	2, 122, 000
2, 277, 400	2, 316, 000	2, 238, 800	2, 277, 400	2, 451, 100	2, 393, 200	2, 258, 100	1, 833, 500
887, 800	772, 000	810, 600	772, 000	849, 200	868, 500	849, 200	501, 800
3, 185, 200	3, 088, 000	3, 049, 400	3, 049, 400	3, 300, 300	3, 261, 700	3, 107, 300	2, 325, 300

FRANCE—Continued.

Statement showing the exports

Whither exported.	1873.	1874.	1875.	1876.	1877.
<i>Continent of America—Continued.</i>					
<i>Martinique:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
French products.....	2,914,800	2,523,800	2,972,200	2,200,200	2,702,000
Foreign products.....	887,400	1,042,200	1,198,600	994,300	1,331,700
Total.....	3,802,100	3,570,500	4,168,800	3,184,500	4,033,700
<i>Peru:</i>					
French products.....	7,816,500	4,002,200	4,593,400	3,300,300	3,802,100
Foreign products.....	3,686,300	1,270,800	1,100,100	656,000	714,100
Total.....	11,502,800	6,272,500	5,693,500	3,956,300	4,516,200
<i>Hayti:</i>					
French products.....	2,393,200	2,489,700	4,207,400	2,547,600	2,316,000
Foreign products.....	540,400	405,300	714,100	250,900	1,061,500
Total.....	2,933,000	2,893,000	4,921,500	2,798,500	3,377,600
<i>French Guiana:</i>					
French products.....	1,042,200	849,200	1,003,600	1,030,800	1,080,800
Foreign products.....	173,700	270,200	154,400	231,600	405,300
Total.....	1,215,900	1,119,400	1,158,000	1,312,400	1,486,100
<i>Venezuela:</i>					
French products.....	1,351,000	887,800	1,466,800	1,832,800	1,640,500
Foreign products.....	212,300	231,600	733,400	443,900	772,000
Total.....	1,563,300	1,119,400	2,200,200	2,296,700	2,412,500
<i>Spanish America:</i>					
French products.....	4,516,200	2,895,000	4,265,300	3,145,900	3,049,400
Foreign products.....	1,679,100	887,800	579,000	463,200	1,158,000
Total.....	6,195,300	3,782,800	4,844,300	3,609,100	4,207,400
<i>St. Pierre, Miquelon, &c.:</i>					
French products.....	1,447,500	1,351,000	1,196,600	1,138,700	1,119,400
Foreign products.....	135,100	154,400	135,100	77,200	172,700
Total.....	1,582,600	1,505,400	1,331,700	1,215,000	1,292,100
<i>British America:</i>					
French products.....	2,045,800	2,161,600	1,737,000	1,466,800	1,254,500
Foreign products.....	289,500	886,000	193,000	115,800	250,100
Total.....	2,335,300	2,547,600	1,930,000	1,582,600	1,504,600
<i>Ecuador:</i>					
French products.....	636,900	289,500	231,600	443,000	463,200
Foreign products.....	96,500	115,800	57,900	114,400	36,500
Total.....	733,400	405,300	289,500	558,300	559,700
<i>Guatemala:</i>					
French products.....	714,100	386,000	443,900	540,400	501,800
Foreign products.....	96,500	77,200	77,200	115,800	154,400
Total.....	810,600	463,200	521,100	656,200	656,200
<i>Dutch Possessions:</i>					
French products.....	849,200	501,800	308,800	231,600	231,600
Foreign products.....	57,900	38,600	38,600	57,900	289,500
Total.....	907,100	501,800	347,400	289,500	521,100
TOTAL TO AMERICA:					
French products.....	143,611,300	124,041,100	122,283,800	106,786,900	107,618,700
Foreign products.....	44,698,800	82,076,600	84,238,500	29,297,200	36,989,200
Total.....	188,310,100	156,117,700	156,542,300	136,084,100	144,607,900
<i>Continent of Asia.</i>					
<i>British India:</i>					
French products.....	1,196,600	1,042,200	1,582,600	1,235,200	1,621,200
Foreign products.....	772,000	1,833,500	2,854,600	1,775,600	2,084,400
Total.....	1,968,600	2,875,700	3,837,200	3,010,800	3,705,600
<i>China:</i>					
French products.....	596,300	808,800	617,600	656,200	598,300
Foreign products.....	3,879,300	579,000	675,500	598,300	694,800
Total.....	4,477,600	887,800	1,293,100	1,251,500	1,293,100
<i>Cochin China and Tonquin:</i>					
French products.....	.....	.....	926,400	829,900	849,200
Foreign products.....	.....	.....	154,400	250,900	154,400
Total.....	.....	.....	1,080,800	1,080,800	1,003,600
<i>Dutch India:</i>					
French products.....	289,500	424,600	617,600	656,200	598,300
Foreign products.....	675,500	617,000	424,600	308,800	173,700
Total.....	965,000	1,042,200	1,042,200	965,000	772,000
<i>Japan:</i>					
French products.....	1,640,500	1,563,300	2,277,400	1,775,600	1,466,800
Foreign products.....	2,833,300	3,956,500	4,130,200	4,823,200	3,493,300
Total.....	3,975,600	5,519,800	6,407,600	6,608,800	4,960,100
<i>Philippine Islands:</i>					
French products.....	77,200	212,800	115,800	115,800	250,900
Foreign products.....	88,600	5,790	19,800	77,200	96,500
Total.....	115,800	270,200	135,100	193,000	347,400

FRANCE—Continued.

by countries—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
2,721,300	2,614,100	2,721,300	2,470,400	2,489,700	2,644,100	2,085,100	1,910,700
1,373,800	1,177,800	1,273,800	1,042,200	963,800	1,812,400	887,800	636,900
3,965,100	3,821,400	3,995,100	3,512,600	3,454,700	3,956,500	2,952,900	2,547,600
4,033,700	2,605,500	984,300	2,123,000	1,698,400	1,563,300	2,045,800	1,408,900
984,300	443,900	231,600	231,600	424,800	270,200	212,300	386,000
5,018,000	3,049,400	1,215,900	2,354,600	2,123,000	1,533,500	2,258,100	1,408,900
2,065,100	1,235,200	2,180,900	1,756,300	617,600	508,300	1,293,100	1,218,900
270,200	212,300	305,400	292,500	154,400	135,100	212,300	173,700
2,335,300	1,447,500	2,489,700	2,048,800	772,000	733,400	1,505,400	1,389,600
984,300	984,300	1,022,900	1,254,500	1,061,500	1,138,700	1,003,600	868,500
289,500	270,200	308,800	347,400	270,200	347,400	270,200	270,200
1,273,800	1,254,500	1,331,700	1,601,900	1,331,700	1,486,100	1,273,800	1,138,700
1,717,700	2,084,400	1,351,000	1,650,800	965,000	984,300	887,800	675,500
694,800	540,400	636,900	424,800	806,700	347,400	534,000	173,700
2,412,500	2,624,800	1,987,700	2,084,400	1,331,700	1,331,700	1,273,800	849,200
2,779,200	2,740,600	3,310,300	2,895,000	2,451,100	1,891,400	934,380	868,500
1,251,500	1,177,300	903,600	1,196,600	907,100	579,000	270,200	289,600
4,033,700	3,017,900	4,303,900	4,091,600	3,458,200	2,470,400	1,254,500	1,158,000
1,119,400	1,061,500	714,100	714,100	926,400	791,300	907,100	887,800
193,000	173,700	154,400	173,700	154,400	154,400	212,300	154,400
1,312,400	1,235,200	968,500	887,800	1,080,800	945,700	1,119,400	1,042,200
1,254,500	1,177,300	1,177,300	1,293,100	1,389,600	1,080,800	887,800	752,700
77,200	115,800	135,100	212,300	135,100	135,100	57,900	88,600
1,331,700	1,293,100	1,312,400	1,505,400	1,624,700	1,215,900	945,700	791,300
463,200	733,400	849,200	829,900	579,000	675,500	521,000	154,400
115,800	115,800	308,800	270,200	173,700	250,900	347,400	154,400
579,000	849,200	1,158,000	1,100,100	752,700	926,400	868,500	308,800
559,700	617,600	501,800	791,300	448,900	250,900	269,200	115,800
193,000	103,000	250,900	212,300	135,100	135,100	95,500	57,900
752,700	810,000	752,700	1,003,600	579,000	368,000	364,700	173,700
231,600	270,200	347,400	403,300	212,300	173,700	135,100	38,600
231,600	173,700	173,700	317,400	347,400	212,300	231,600	57,900
463,200	443,900	521,100	752,700	559,700	368,000	868,500	95,500
103,718,280	115,452,600	133,176,200	135,852,700	140,319,600	136,142,200	122,036,300	104,162,100
24,953,400	38,424,300	48,403,500	50,216,100	59,251,000	51,434,500	45,746,600	41,763,200
138,671,600	153,876,900	181,479,700	186,068,800	199,600,600	187,576,700	167,782,900	145,927,300
1,582,600	1,370,300	1,080,800	945,700	1,639,800	1,563,300	1,775,600	1,196,000
1,640,500	1,196,600	1,524,700	1,910,700	2,026,500	1,814,200	1,621,200	2,100,100
3,223,100	2,566,900	2,603,500	2,856,400	3,689,300	3,377,500	3,398,800	3,296,700
540,400	675,500	656,200	656,200	579,000	482,500	772,000	559,700
2,316,000	3,917,900	3,300,300	6,311,100	5,326,800	3,358,200	2,470,400	2,702,000
2,836,400	4,593,400	3,956,500	6,967,300	5,906,800	3,840,700	3,342,400	3,261,700
598,300	810,000	829,900	887,800	1,068,500	1,389,600	1,563,300	2,637,100
424,600	887,800	386,000	231,600	482,500	443,900	482,500	733,400
1,022,900	1,698,400	1,215,900	1,119,400	1,486,100	1,833,500	2,045,800	2,670,500
579,000	810,000	540,400	598,300	482,500	617,600	733,400	1,008,600
231,600	250,900	212,300	193,000	403,300	501,800	617,600	501,800
810,600	1,061,500	752,700	791,300	887,800	1,119,400	1,351,000	1,505,400
1,468,800	1,698,400	1,003,600	675,500	482,500	579,000	598,300	598,300
1,718,000	1,704,900	1,514,000	965,000	1,003,600	636,900	347,400	398,000
3,184,800	3,493,300	2,547,600	1,640,500	1,486,100	1,215,900	945,700	984,300
173,700	173,700	193,000	173,700	328,100	328,100	108,000	77,200
115,800	95,500	231,600	388,000	907,100	405,900	328,100	270,200
269,500	270,200	424,600	559,700	1,236,200	733,400	521,100	347,400

FRANCE.—Continued.

Statement showing the exports

Whither exported.	1873.	1874.	1875.	1876.	1877.
<i>Continent of Asia—Continued.</i>					
<i>French India:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
French products.....	115,800	115,800	173,700	154,400	212,300
Foreign products.....	57,900	19,300	19,300	.....	19,300
Total.....	173,700	135,100	193,000	154,400	231,600
<i>Siam:</i>					
French products.....	96,500	38,600	38,600	.....	57,900
Foreign products.....	1,158,000	965,000	38,600	.....	.....
Total.....	1,254,500	1,003,600	77,200	.....	57,900
<i>TOTAL TO ASIA:</i>					
French products.....	4,014,400	3,705,600	6,349,700	5,423,300	5,654,900
Foreign products.....	8,916,600	8,023,800	7,816,500	7,384,000	6,716,400
Total.....	12,931,000	11,734,400	14,166,200	12,757,300	12,371,300
<i>Australasia.</i>					
<i>Australasia:</i>					
French products.....	405,300	540,400	115,800	289,500	270,200
Foreign products.....	19,300	38,600	.....	.....	19,300
Total.....	424,600	579,000	115,800	289,500	289,500
<i>GRAND TOTAL EXPORTS:</i>					
French products.....	780,943,900	714,312,300	747,411,800	690,090,800	663,205,900
Foreign products.....	199,755,000	183,083,900	180,339,200	187,576,700	180,358,500
Total.....	980,708,900	907,406,300	927,751,000	877,667,500	843,564,400

Value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Alimentary products.</i>					
<i>Cereals:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Entered for consumption.....	44,505,800	63,825,100	26,749,800	46,242,800	39,951,000
Transit and re-export.....	25,842,700	10,827,300	10,499,200	11,560,700	9,572,800
Total.....	70,348,500	74,652,400	37,249,000	57,803,500	49,523,800
<i>Wines:</i>					
Entered for consumption.....	5,558,400	5,732,100	2,663,400	4,882,900	5,638,500
Transit and re-export.....	1,254,500	1,405,400	829,900	849,500	1,422,900
Total.....	6,812,900	7,137,500	3,493,300	5,732,400	6,716,400
<i>Animals (horses excepted):</i>					
Entered for consumption.....	29,779,900	19,367,900	21,538,800	20,204,500	24,469,100
Transit and re-export.....	96,500	183,000	115,800	77,200	1,466,800
Total.....	29,876,400	19,550,900	21,654,600	20,281,700	25,935,900
<i>Coffee:</i>					
Entered for consumption.....	19,208,500	17,041,900	20,284,300	20,844,000	19,107,000
Transit and re-export.....	12,448,500	11,463,500	18,257,800	12,911,700	10,518,500
Total.....	31,657,000	28,505,400	38,542,100	33,755,700	29,625,500
<i>Table fruits:</i>					
Entered for consumption.....	6,890,100	5,635,600	5,384,700	6,330,400	6,233,900
Transit and re-export.....	270,200	270,200	289,500	318,100	289,500
Total.....	7,160,300	5,905,800	5,674,200	6,648,500	6,523,400
<i>Butter and cheese:</i>					
Entered for consumption.....	6,002,300	4,921,500	5,558,400	7,005,900	6,156,700
Transit and re-export.....	1,466,800	1,640,500	2,200,200	1,833,500	1,447,500
Total.....	7,469,100	6,562,000	7,758,600	8,839,400	7,604,200
<i>Sugars, foreign:</i>					
Entered for consumption.....	11,425,600	8,376,200	11,541,400	10,171,100	13,220,500
Transit and re-export.....	463,200	115,800	559,700	733,400	964,300
Total.....	11,888,800	8,492,000	12,101,100	10,904,500	14,204,800
<i>Fish, sea:</i>					
Entered for consumption.....	6,291,800	5,404,000	5,133,800	5,751,400	6,060,200
Transit and re-export.....	77,200	88,600	135,100	38,600	177,400
Total.....	6,369,000	5,492,600	5,268,900	5,790,000	6,137,600
<i>Olive oil:</i>					
Entered for consumption.....	6,349,700	3,667,000	3,221,800	6,890,100	9,900,900
Transit and re-export.....	1,794,900	1,351,000	2,682,700	1,235,200	2,509,000
Total.....	8,144,600	5,018,000	5,904,500	8,125,300	12,409,900
<i>Rice:</i>					
Entered for consumption.....	3,319,600	3,107,300	3,145,900	3,454,700	3,300,300
Transit and re-export.....	849,200	675,500	915,700	617,600	791,300
Total.....	4,168,800	3,782,800	4,061,600	4,072,300	4,091,600
<i>Sugars, French colonial:</i>					
Entered for consumption.....	9,900,900	9,341,200	10,923,800	8,685,000	11,097,500
Transit and re-export.....	752,700	19,300	.....	482,500	.....
Total.....	10,653,600	9,360,500	10,923,800	9,167,500	11,097,500

*Including oil from

FRANCE—Continued.

by countries—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
178,700	154,400	231,600	154,400	96,500	96,500	77,200	178,700
19,300	88,600	19,300	19,300	19,300	19,300	19,300	19,300
193,000	193,000	250,900	178,700	96,500	115,800	77,200	193,000
-----	-----	-----	-----	-----	-----	19,300	-----
19,300	19,300	-----	-----	-----	-----	19,300	-----
19,300	19,300	-----	-----	-----	-----	19,300	-----
5,114,500	5,693,500	4,535,500	4,091,600	4,632,000	5,056,600	5,782,100	5,944,400
6,486,100	8,202,500	7,218,200	10,016,700	10,151,800	7,179,600	5,867,200	7,214,600
11,598,600	13,896,000	11,753,700	14,108,300	14,783,800	12,236,200	11,598,300	13,159,000
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772,000	463,200	752,700	926,400	772,000	926,400	1,153,000	1,406,800
772,000	463,200	752,700	19,800	77,200	1,022,900	636,900	1,717,700
-----	-----	-----	945,700	849,200	1,949,300	1,794,900	3,184,500
613,682,100	623,640,900	669,304,700	687,369,500	669,850,200	696,216,700	623,972,500	596,175,600
179,876,000	200,391,900	220,927,100	224,363,500	229,592,800	214,191,400	190,179,000	167,178,900
708,558,109	824,032,800	890,231,800	911,733,000	919,453,000	890,408,100	814,151,500	763,348,500

articles imported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
108,215,100	165,478,200	152,180,500	100,840,700	96,963,200	72,875,000	69,518,600	44,872,500
15,420,700	16,057,600	13,374,900	12,467,800	18,063,100	17,794,600	2,412,500	8,376,200
122,635,800	181,535,800	165,555,400	112,808,500	115,026,300	90,169,600	71,931,100	53,248,700
11,425,600	23,295,100	60,582,700	70,223,700	60,775,700	72,683,800	66,449,900	74,969,800
1,093,600	1,158,000	1,851,000	2,277,400	2,007,200	1,177,800	1,838,500	1,486,100
12,429,200	24,453,100	61,933,700	72,510,100	62,782,900	73,861,100	68,283,400	76,485,900
45,991,900	87,828,000	34,199,600	27,849,900	34,431,200	36,032,400	29,181,000	25,591,800
1,930,000	1,008,600	733,400	598,300	694,800	636,900	598,800	540,400
47,921,900	88,831,600	34,933,000	28,448,200	35,126,000	36,669,300	29,779,900	26,132,200
19,531,600	19,512,900	18,896,800	18,856,100	16,501,500	18,215,700	15,999,700	15,440,000
12,081,800	14,957,500	10,578,400	21,098,160	11,630,900	19,478,700	11,174,700	14,571,500
31,612,400	34,469,800	29,413,200	39,949,200	28,832,400	37,789,400	27,174,400	30,011,500
6,619,900	15,227,000	19,724,600	18,915,300	13,162,600	15,478,600	15,594,400	26,496,900
308,800	406,000	540,400	810,600	849,200	685,200	1,812,400	1,196,600
6,928,700	15,633,000	20,265,000	14,725,900	14,011,800	16,163,800	16,908,800	27,695,500
6,465,500	7,825,800	8,511,300	8,588,500	8,646,400	8,853,700	8,279,700	8,009,500
1,775,600	2,644,100	3,083,000	3,585,800	3,030,100	2,759,900	2,731,800	2,624,800
8,241,100	10,479,900	11,569,300	12,174,800	11,676,500	11,618,600	11,001,000	10,634,300
8,511,300	7,081,400	16,096,200	16,462,900	15,980,400	11,155,400	9,941,100	12,467,800
849,200	578,000	907,100	463,200	1,273,800	40,000	637,000	231,600
9,360,500	8,260,400	17,003,900	16,926,100	17,254,200	11,195,400	9,978,100	12,699,400
6,137,400	5,770,700	5,500,500	6,272,500	7,005,900	8,048,100	8,028,900	9,478,200
98,500	57,900	77,200	115,800	19,300	193,000	329,900	945,700
6,238,900	5,828,600	5,577,700	6,368,300	7,025,200	8,241,100	8,656,700	10,422,030
6,428,900	9,927,200	5,133,800	6,581,300	4,381,100	7,874,100	5,654,900	5,500,500
2,354,600	-----	-----	2,238,600	1,370,300	2,624,200	1,466,800	2,580,200
8,781,500	9,927,200	5,133,800	6,820,100	5,751,400	10,500,600	7,121,700	8,086,700
3,128,600	4,228,700	4,110,900	4,496,900	6,446,200	7,777,900	5,751,400	4,207,400
1,080,800	1,081,500	1,331,700	1,080,800	1,061,500	1,233,100	1,233,100	907,100
4,207,400	5,288,200	5,442,600	5,577,700	7,507,700	9,071,000	6,968,600	5,114,500
9,785,100	8,762,300	9,090,300	8,916,600	10,672,900	7,353,300	5,288,200	8,028,800
-----	424,600	185,100	733,400	501,800	231,600	1,185,000	654,200
9,785,100	9,186,900	9,275,400	9,650,000	11,174,700	7,584,900	6,446,200	8,686,900

seeds and grains.

FRANCE—Continued.

Value of principal

Articles.	1872.	1874.	1875.	1876.	1877.
<i>Alimentary products—Continued.</i>					
<i>Cacao:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Entered for consumption	2,180,900	2,108,700	2,412,500	3,319,600	3,306,300
Transit and re-export	1,003,600	694,800	714,100	1,621,200	1,351,000
Total	3,184,500	2,793,500	3,126,600	4,940,800	4,657,300
<i>Brandy and spirits:</i>					
Entered for consumption	1,196,600	1,428,200	1,524,700	1,568,300	2,123,000
Transit and re-export	386,000	714,100	270,200	521,100	1,119,400
Total	1,582,600	2,142,300	1,794,900	2,089,400	3,242,400
<i>Meats:</i>					
Entered for consumption	5,944,400	3,551,200	3,454,700	5,654,000	3,209,400
Transit and re-export	154,400	193,000	366,700	579,000	540,400
Total	6,098,800	3,744,200	3,821,400	6,233,000	3,800,800
<i>Grease of all sorts:</i>					
Entered for consumption	8,935,900	5,284,700	4,419,700	9,476,300	10,151,800
Transit and re-export	289,500	154,400	96,500	280,200	306,700
Total	9,225,400	5,539,100	4,516,200	9,756,500	10,518,500
<i>Legumes, and flour of:</i>					
Entered for consumption	2,123,000	1,235,200	1,601,900	6,099,400	5,018,000
Transit and re-export	19,300	38,600	77,200	77,200	57,900
Total	2,123,000	1,254,500	1,640,500	6,176,600	5,075,900
<i>Total, alimentary products:</i>					
Entered for consumption	109,608,400	100,122,800	134,559,600	176,576,300	184,064,100
Transit and re-export	47,149,900	29,785,700	38,001,700	83,736,400	82,115,200
Total	216,758,300	189,908,500	172,561,300	210,312,700	216,179,300
<i>Products necessary to industry.</i>					
<i>Wool:</i>					
Entered for consumption	62,840,800	60,323,000	64,288,300	53,499,600	60,691,500
Transit and re-export	849,200	370,300	656,200	1,698,400	791,800
Total	63,690,000	60,693,300	64,944,500	55,198,000	61,683,300
<i>Silk:</i>					
Entered for consumption	67,939,000	62,203,900	63,706,300	104,953,400	43,656,600
Transit and re-export	18,103,400	16,752,400	14,455,700	23,863,000	14,756,300
Total	86,039,400	78,956,300	78,162,000	128,806,400	58,412,900
<i>Wood, common:</i>					
Entered for consumption	30,165,900	34,083,800	31,671,300	39,068,200	39,372,000
Transit and re-export	88,600	38,600	38,600	96,500	501,800
Total	30,204,500	34,122,400	31,709,900	39,164,700	39,873,800
<i>Cotton:</i>					
Entered for consumption	35,840,100	46,262,100	42,716,900	44,235,600	37,770,100
Transit and re-export	2,952,900	2,392,200	2,354,600	3,118,000	2,435,400
Total	38,798,000	48,653,300	45,065,500	47,353,600	41,205,500
<i>Hides and skins:</i>					
Entered for consumption	31,246,700	35,666,400	39,236,900	32,539,800	29,451,800
Transit and re-export	1,418,200	2,277,400	1,910,700	1,712,400	1,544,000
Total	32,664,900	37,943,800	41,147,600	34,252,200	30,995,800
<i>Coal and coke:</i>					
Entered for consumption	46,802,500	34,797,900	35,357,600	33,408,300	30,783,500
Transit and re-export	1,312,400	1,215,900	1,100,300	1,466,800	1,351,000
Total	48,114,900	36,013,800	36,457,900	34,875,100	32,134,500
<i>Flax:</i>					
Entered for consumption	14,532,900	12,163,600	17,466,500	9,804,400	13,721,000
Transit and re-export	270,200	38,600	154,400	19,300	77,200
Total	14,803,100	12,202,200	17,620,900	9,823,700	13,798,200
<i>Oleaginous fruits and grains:</i>					
Entered for consumption	23,430,200	19,550,900	24,954,900	22,002,000	25,476,000
Transit and re-export	772,000	1,215,900	1,312,400	249,500	1,196,600
Total	24,202,200	20,766,800	26,267,300	22,251,500	26,672,600
<i>Oil from grain, fruit, &c. (entered with olive oil):</i>					
Entered for consumption .....	.....	.....	.....	.....	.....
Transit and re-export .....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....
<i>Copper:</i>					
Entered for consumption	8,511,300	9,341,200	6,581,300	10,709,400	7,090,200
Transit and re-export	772,000	328,100	540,400	1,061,500	1,247,400
Total	9,283,300	9,669,300	7,121,700	11,830,900	8,337,600
<i>Leaf tobacco:</i>					
Entered for consumption	5,173,400	6,272,500	4,072,300	6,195,300	5,693,500
Transit and re-export	2,837,100	250,900	1,698,400	1,563,300	2,084,400
Total	8,009,500	6,523,400	5,770,700	7,758,600	7,777,900

articles imported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
4,283,300	4,747,800	8,784,200	4,053,000	3,880,000	5,095,200	4,843,500	4,598,400
898,700	3,793,500	2,890,000	1,949,800	2,043,100	1,100,100	1,832,800	1,215,900
4,682,000	8,511,300	6,153,200	6,002,800	5,925,100	6,195,300	6,195,300	5,809,300
2,854,400	4,091,600	5,249,600	4,998,700	5,461,000	4,072,800	4,226,700	4,458,800
2,044,000	2,044,100	3,010,800	2,123,000	2,354,600	2,547,600	1,158,000	1,717,700
4,980,400	6,735,700	8,260,400	7,121,700	7,816,500	6,619,900	5,884,700	6,170,000
12,834,500	11,830,900	13,432,100	10,672,900	6,735,700	5,983,000	4,767,100	6,581,300
1,052,200	675,500	1,022,900	849,200	1,061,500	636,900	617,000	829,900
12,896,700	12,506,400	14,475,000	11,522,100	7,797,200	6,619,900	5,884,700	7,411,200
14,206,900	11,599,300	10,750,100	10,788,700	7,102,400	10,615,000	4,708,200	7,005,900
883,900	714,100	791,300	753,400	694,800	714,100	501,900	501,800
14,890,800	12,313,400	11,541,400	11,522,100	7,797,200	11,329,100	5,211,000	7,507,700
4,226,700	7,372,000	0,637,800	0,136,700	5,983,700	5,867,200	3,998,000	2,891,400
115,800	115,800	271,000	77,200	212,800	212,800	57,800	115,800
4,242,500	7,483,400	6,909,400	0,233,900	6,170,000	6,079,500	3,454,700	2,937,200
270,626,700	344,998,800	373,841,000	319,183,400	304,090,800	297,096,000	280,630,000	261,538,600
40,864,200	46,202,800	39,580,400	51,107,100	47,660,800	52,122,500	28,507,700	38,503,500
311,490,900	391,249,600	413,421,800	370,880,500	351,781,100	349,728,500	290,098,300	300,087,100
64,577,800	53,719,100	71,448,600	58,729,900	58,498,300	63,709,300	64,095,300	59,245,200
694,900	1,100,100	1,466,800	938,000	1,177,800	1,659,600	1,867,900	2,065,100
65,272,600	56,819,200	72,915,400	59,687,900	59,675,600	65,869,100	66,063,200	55,410,300
61,950,000	61,065,200	62,184,600	75,482,300	61,412,600	59,096,600	51,839,800	40,800,200
17,496,800	14,532,900	14,801,000	18,063,100	13,894,200	9,476,800	12,778,600	6,426,000
79,436,500	75,598,100	77,045,000	94,145,400	74,806,800	68,572,900	64,616,400	47,227,100
42,575,800	42,672,300	53,654,000	40,800,200	44,081,200	41,996,600	37,461,300	30,667,700
115,800	115,800	103,000	115,800	173,700	173,700	185,100	154,400
42,691,600	42,788,100	53,847,000	40,918,000	44,254,900	42,170,500	37,696,400	30,822,100
37,808,700	39,449,200	41,572,200	43,502,200	40,877,400	39,584,300	32,889,200	34,469,800
3,010,800	3,493,800	6,214,600	4,786,400	4,700,200	2,972,200	4,439,000	2,598,900
40,819,500	42,942,500	47,788,800	48,288,600	45,586,600	42,566,500	37,826,200	37,086,700
28,200,900	33,832,900	32,810,000	31,266,000	33,003,000	37,075,300	33,871,500	34,226,100
1,370,300	1,331,700	1,098,400	1,030,000	1,891,400	1,949,800	1,852,800	2,373,900
30,571,200	35,164,600	34,508,400	33,196,000	31,894,400	39,024,600	35,724,300	38,600,000
27,618,300	28,061,500	32,829,300	32,945,100	36,496,300	32,308,200	33,385,400	28,178,000
1,196,800	1,274,800	1,737,000	1,617,700	2,065,100	1,968,600	1,698,400	1,708,400
28,814,900	29,356,300	34,566,300	34,502,800	38,561,400	34,276,800	34,068,900	29,898,400
13,181,000	13,355,600	12,564,300	13,471,400	11,522,100	10,499,200	12,313,400	13,085,400
19,800	57,900	77,200	173,700	2,026,500	193,000	289,500	96,500
13,201,200	13,413,500	12,641,500	13,645,100	13,548,600	10,692,200	12,602,900	12,181,900
28,596,000	23,584,600	29,631,300	33,427,600	28,776,300	32,211,700	31,922,200	35,087,400
1,095,000	907,100	553,900	579,000	636,900	868,500	636,900	926,400
27,590,000	24,491,700	30,185,200	34,006,600	29,413,200	33,080,200	32,550,100	36,018,800
-----	4,516,290	4,892,900	4,998,700	4,285,300	6,187,400	5,192,400	53,461,000
-----	2,065,100	1,756,300	2,142,800	1,506,400	2,065,100	2,290,700	2,472,500
-----	6,681,800	6,689,200	7,141,000	5,770,700	8,202,500	7,469,100	7,874,400
7,834,000	6,812,900	7,391,900	8,530,600	8,318,300	9,495,000	6,899,000	5,809,300
424,000	1,331,700	694,800	1,447,500	1,910,700	887,800	1,042,200	714,100
7,758,600	8,144,000	8,028,800	9,978,100	10,229,000	10,383,400	7,411,200	6,523,400
3,840,700	5,539,100	4,689,900	5,685,600	5,288,200	6,812,900	5,944,400	5,790,900
2,219,500	848,200	1,447,500	2,123,000	935,000	2,063,400	1,215,900	2,451,100
6,096,300	6,388,300	6,187,400	7,758,600	6,233,300	9,476,800	7,160,800	8,241,100

FRANCE—Continued.

Value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Products necessary to industry—Cont'd.</i>					
Minerals of all sorts:	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Entered for consumption.....	6,562,000	7,102,400	7,044,500	6,870,800	8,704,300
Transit and re-export.....	96,500	96,500	212,300	154,400	19,300
Total.....	6,658,500	7,198,900	7,256,800	7,025,200	8,723,600
Petroleum:					
Entered for consumption.....	3,300,300	2,603,400	2,580,200	4,670,600	5,384,700
Transit and re-export.....	366,700	308,800	96,500	173,700	617,600
Total.....	3,667,000	2,972,200	2,682,700	4,844,300	6,002,300
Guano and other manures:					
Entered for consumption.....	7,604,200	7,353,300	5,732,100	7,855,100	7,816,500
Transit and re-export.....	173,700	19,300	154,400	.....	193,000
Total.....	7,777,900	7,373,600	5,886,500	7,855,100	8,009,500
Indigo:					
Entered for consumption.....	5,075,900	4,265,300	3,763,500	5,153,100	3,609,100
Transit and export.....	212,300	984,300	636,200	521,100	405,300
Total.....	5,288,200	5,249,600	4,419,700	5,674,200	4,014,400
Iron and steel:					
Entered for consumption.....	2,393,200	2,991,500	2,702,000	2,663,400	2,354,600
Transit and re-export.....	2,200,200	2,730,900	2,298,700	2,412,500	1,968,600
Total.....	4,593,400	5,751,400	4,998,700	5,075,900	4,323,200
Fine woods:					
Entered for consumption.....	2,398,200	2,586,200	4,207,400	4,058,000	3,261,700
Transit and re-export.....	212,300	39,300	96,500	154,400	38,600
Total.....	2,606,500	2,625,500	4,303,900	4,207,400	3,300,300
Horses:					
Entered for consumption.....	2,509,000	2,470,400	3,377,500	3,551,200	3,589,800
Transit and re-export.....	347,400	347,400	617,600	308,800	231,600
Total.....	2,856,400	2,817,800	3,995,100	3,860,000	3,821,400
Hemp:					
Entered for consumption.....	2,798,500	2,142,500	2,373,900	2,663,800	2,454,700
Transit and re-export.....	328,100	308,800	463,200	370,200	405,800
Total.....	3,126,600	2,451,300	2,837,100	3,034,000	2,860,500
Lead:					
Entered for consumption.....	3,628,400	4,361,800	4,207,400	4,709,200	4,477,600
Transit and re-export.....	19,300	96,500	.....	38,600	77,200
Total.....	3,647,700	4,458,300	4,207,400	4,747,800	4,554,800
Zinc:					
Entered for consumption.....	3,587,800	2,817,800	3,165,200	3,184,500	3,435,400
Transit and re-export.....	19,300	57,900	57,900	57,900	38,600
Total.....	3,606,100	2,875,700	3,223,100	3,242,400	3,474,000
Tin, crude:					
Entered for consumption.....	2,296,700	1,910,700	2,835,800	2,180,900	1,659,800
Transit and re-export.....	19,300	38,600	19,300	19,300	57,900
Total.....	2,316,000	1,949,300	2,855,100	2,200,200	1,717,700
Castings, rough:					
Entered for consumption.....	1,812,400	714,100	1,293,100	1,812,400	1,331,700
Transit and re-export.....	2,606,500	2,702,000	1,930,000	1,601,900	1,254,500
Total.....	3,917,900	3,416,100	3,223,100	3,414,300	2,586,200
Jute:					
Entered for consumption.....	2,933,600	2,007,200	2,817,800	2,412,500	2,206,700
Transit and re-export.....	.....	115,800	.....	.....	238,600
Total.....	2,933,600	2,123,000	2,817,800	2,412,500	2,535,300
Nitrates of soda and potash:					
Entered for consumption.....	3,474,000	3,396,800	4,651,300	4,400,400	5,249,600
Transit and re-export.....	38,600	.....	19,300	19,300	57,900
Total.....	3,512,600	3,396,800	4,670,600	4,419,700	5,307,500
Hops:					
Entered for consumption.....	694,800	926,400	2,933,600	4,998,700	3,880,000
Transit and re-export.....	57,900	77,200	.....	482,500	135,100
Total.....	752,700	1,003,600	2,933,600	5,481,200	3,995,100
Grains, seed:					
Entered for consumption.....	752,700	829,900	1,235,200	1,987,900	1,659,800
Transit and re-export.....	77,200	38,600	.....	77,200	38,600
Total.....	829,900	868,500	1,273,800	2,065,100	1,698,400
Sulphur:					
Entered for consumption.....	1,544,000	1,544,000	1,408,900	1,833,500	1,408,900
Transit and re-export.....	.....	.....	.....	.....	.....
Total.....	1,544,000	1,544,000	1,408,900	1,833,500	1,408,900
Saffron:					
Entered for consumption.....	579,000	308,800	482,500	308,800	405,300
Transit and re-export.....	791,800	656,200	868,500	501,800	868,500
Total.....	1,270,800	965,000	1,351,000	810,600	1,273,800
Total products necessary to industry:					
Entered for consumption.....	379,920,500	371,756,600	398,298,700	422,110,300	362,860,400
Transit and re-export.....	36,891,600	33,528,400	31,961,000	41,172,800	33,634,600
Total.....	416,812,100	405,285,000	418,257,700	463,283,100	396,495,000

articles imported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
5,888,500	5,558,400	6,909,400	7,025,200	7,816,500	7,507,700	6,446,200	6,677,800
96,500	57,900	57,900	212,800	96,500	38,600	57,900	135,100
5,985,000	5,558,400	6,967,300	7,237,500	7,913,000	7,546,300	6,504,100	6,812,900
4,061,600	3,068,700	2,914,300	4,439,030	3,937,200	4,747,800	5,211,000	4,458,300
173,700	112,300	559,700	579,000	112,300	636,900	738,400	386,000
4,265,300	3,181,000	3,474,000	5,018,000	4,049,500	5,384,700	5,944,400	4,844,300
3,898,600	6,330,400	4,033,700	2,277,400	2,219,500	1,872,100	5,616,300	2,161,600
289,500	96,500	173,700	77,200	88,600	38,600	57,900	38,600
4,188,100	6,426,900	4,207,400	2,854,600	2,258,100	1,872,100	5,616,300	2,200,200
6,349,700	4,921,500	4,180,200	4,767,100	5,114,500	4,593,400	4,689,900	5,384,700
1,930,100	328,100	636,900	444,900	405,300	675,500	738,400	386,000
6,677,800	5,249,800	4,767,100	5,212,000	5,519,800	4,998,700	5,365,400	6,118,100
3,721,300	2,740,600	3,030,100	4,805,700	5,230,300	3,744,200	2,624,800	2,084,400
1,930,000	2,065,100	2,378,900	2,895,000	3,355,200	2,895,000	2,605,900	1,775,000
4,651,300	4,805,700	5,404,000	7,700,700	8,585,500	6,689,200	5,280,300	3,860,000
3,126,600	4,439,000	4,632,00	4,921,500	5,461,900	5,442,600	4,308,900	4,670,600
38,600	57,900	77,200	115,800	96,500	135,100	96,500	57,900
3,165,200	4,496,900	4,709,200	5,037,300	5,558,400	5,677,700	4,400,400	4,728,500
4,554,800	6,928,700	6,772,900	5,963,700	5,558,400	5,153,100	3,898,600	3,145,900
270,200	443,900	194,400	347,400	424,600	270,200	173,700	154,400
4,825,000	7,372,600	6,967,300	6,311,100	5,983,000	5,428,500	4,072,300	3,300,300
3,126,600	3,396,800	2,354,600	3,667,000	3,203,800	3,185,200	3,126,600	2,779,200
598,300	656,200	714,100	826,400	829,900	1,003,600	2,605,900	1,158,000
3,724,900	4,053,000	3,068,700	4,593,400	4,033,700	4,168,800	3,956,500	3,987,200
3,840,700	3,705,600	3,744,200	3,917,900	4,091,600	3,860,000	2,721,300	3,145,900
57,900	38,600	19,300	57,900	115,800	57,900	19,300	57,900
3,898,600	3,744,200	3,763,500	3,075,800	4,207,400	3,917,900	2,740,600	3,145,900
2,702,000	3,010,800	2,644,100	3,165,200	2,547,600	2,663,400	2,547,600	2,489,700
2,702,000	3,010,800	2,644,100	3,165,200	2,547,600	2,663,400	2,547,600	2,489,700
1,737,000	1,756,800	2,258,100	2,624,800	2,644,100	2,837,100	2,451,100	2,238,800
86,500	97,900	19,300	77,200	38,600	173,700	115,800	77,200
1,833,500	1,814,200	2,277,400	2,702,000	2,682,700	3,010,800	2,566,900	2,316,000
1,100,100	926,400	1,003,600	2,596,900	3,010,800	3,068,000	1,582,600	963,000
887,800	849,200	1,408,900	1,119,400	907,100	926,400	963,000	964,300
1,967,900	1,775,600	2,412,500	3,686,300	3,917,900	4,014,400	2,547,600	1,949,300
1,930,000	3,396,800	2,759,900	2,796,500	2,933,600	3,647,700	2,277,400	2,412,500
19,300	19,300	38,000	38,000	19,300	38,600	38,600	19,300
1,949,300	3,416,100	2,759,900	2,837,100	2,952,900	3,686,300	2,316,000	2,431,800
4,689,900	5,519,800	1,544,000	3,358,200	4,863,600	5,558,400	4,439,000	3,821,400
115,800	19,300	135,000	77,200	77,200	38,600	19,300	19,300
4,805,700	5,589,100	1,679,100	3,358,200	4,940,800	5,597,000	4,456,300	3,840,700
1,640,500	1,100,100	1,196,600	1,682,600	2,837,100	2,316,000	2,045,800	791,300
57,900	38,600	19,300	38,600	115,800	57,900	77,200	19,300
1,696,400	1,138,700	1,215,900	1,621,200	2,952,900	2,873,900	2,123,000	810,600
868,500	1,080,800	1,621,200	2,103,700	2,952,900	2,045,800	1,689,800	1,524,700
38,600	19,300	19,300	135,100	57,900	38,600	501,800	38,600
907,100	1,100,100	1,640,500	2,238,800	3,010,800	2,084,400	1,775,600	1,563,300
1,544,000	1,679,100	2,219,500	2,180,900	1,486,100	1,563,300	1,717,700	1,466,800
1,544,000	1,679,100	2,219,500	2,180,900	1,486,100	1,563,300	1,717,700	1,466,800
463,200	907,100	2,277,400	1,042,200	887,800	839,900	1,042,200	1,042,200
569,300	634,900	675,500	733,400	849,200	752,700	501,800	270,200
1,022,500	1,544,000	2,952,000	1,775,600	1,737,000	1,582,600	1,544,000	1,312,400
396,953,700	375,065,500	409,704,800	411,997,100	399,336,300	403,563,000	372,093,700	340,181,800
33,141,500	32,556,600	37,765,700	42,334,700	38,053,100	32,404,700	33,454,100	27,840,600
432,067,200	407,622,100	447,470,500	454,331,800	437,389,400	435,967,700	406,117,800	368,022,400

FRANCE—Continued.

Value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Manufactures.</i>					
<i>Cotton manufactures:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Entered for consumption	8,298,100	11,097,500	16,289,200	14,899,800	12,878,100
Transit and re-export	15,575,100	18,061,800	16,402,900	15,034,700	17,350,700
Total	24,781,200	29,159,300	32,752,100	29,934,500	30,228,800
<i>Silk manufactures:</i>					
Entered for consumption	5,905,800	6,330,400	7,170,600	7,334,000	6,272,500
Transit and re-export	30,995,800	30,839,000	26,827,000	30,667,700	31,999,400
Total	36,901,600	37,169,400	34,006,600	38,001,700	38,271,900
<i>Wool manufactures:</i>					
Entered for consumption	11,522,100	12,853,800	15,073,300	15,247,000	13,274,800
Transit and re-export	11,830,900	10,441,300	9,592,100	9,457,000	9,711,500
Total	23,353,000	23,295,100	24,665,400	24,704,000	22,986,300
<i>Machines and machinery:</i>					
Entered for consumption	4,940,800	5,558,400	6,253,200	6,986,800	7,276,100
Transit and re-export	1,254,600	1,119,400	880,900	1,061,500	1,254,500
Total	6,195,400	6,677,800	7,083,100	8,048,300	8,530,600
<i>Prepared hides:</i>					
Entered for consumption	4,786,400	5,404,400	5,144,600	6,484,600	4,940,800
Transit and re-export	2,238,800	2,556,000	2,839,200	2,219,700	1,988,800
Total	7,025,200	7,960,400	7,983,800	8,704,300	6,929,600
<i>Cotton yarn and thread:</i>					
Entered for consumption	4,188,100	5,307,500	5,202,500	5,166,800	5,279,700
Transit and re-export	868,500	926,400	1,235,200	1,133,700	929,900
Total	5,056,600	6,233,900	6,437,700	6,300,500	6,209,600
<i>Paper, books, and engraving:</i>					
Entered for consumption	2,335,300	2,377,400	2,431,800	2,605,500	2,412,500
Transit and re-export	1,003,600	829,900	868,500	752,700	907,100
Total	3,338,900	3,207,300	3,300,300	3,358,200	3,319,600
<i>Gold and silver ware, including jewelry:</i>					
Entered for consumption	714,100	753,700	694,800	714,100	733,400
Transit and re-export	11,155,400	5,985,100	5,075,900	3,782,800	4,342,500
Total	11,869,500	6,738,800	5,770,700	4,496,900	5,075,900
<i>Tools and hardware:</i>					
Entered for consumption	2,354,600	2,470,400	2,431,800	2,373,900	2,489,700
Transit and re-export	1,235,200	1,100,100	1,003,600	849,200	887,800
Total	3,589,800	3,570,500	3,435,400	3,223,100	3,377,500
<i>Linen and hempen yarn:</i>					
Entered for consumption	1,100,100	1,042,200	2,161,600	1,601,900	2,045,800
Transit and re-export	1,138,700	1,544,000	1,443,900	1,119,400	1,138,700
Total	2,238,800	2,586,200	3,605,500	2,721,300	3,184,500
<i>Clocks and watches:</i>					
Entered for consumption	405,300	463,200	424,600	424,600	405,300
Transit and re-export	3,493,300	3,088,000	5,133,800	2,470,400	2,142,300
Total	3,898,600	3,551,200	5,558,400	2,895,000	2,547,600
<i>Woolen yarn:</i>					
Entered for consumption	3,223,100	3,300,300	3,531,900	3,724,900	3,126,600
Transit and re-export	135,100	135,100	280,500	212,300	154,400
Total	3,358,200	3,435,400	3,812,400	3,937,200	3,281,000
<i>Matting, of straw, bark, grasses, &c.:</i>					
Entered for consumption	2,238,800	2,393,200	2,933,600	3,184,500	2,605,500
Transit and re-export	2,759,900	3,917,900	5,153,100	3,030,100	3,819,600
Total	4,998,700	6,311,100	8,086,700	6,214,600	6,425,100
<i>Hata, straw, bark, and esparto:</i>					
Entered for consumption	3,281,000	3,917,900	4,535,500	4,968,700	4,689,900
Transit and re-export	1,563,300	2,085,100	2,200,200	2,316,000	2,560,900
Total	4,844,300	6,003,000	6,735,700	7,284,700	7,250,800
<i>Linen and hempen goods:</i>					
Entered for consumption	2,373,900	2,181,600	2,509,000	2,412,500	2,065,100
Transit and re-export	1,524,700	1,380,600	1,466,800	1,273,800	1,601,500
Total	3,898,600	3,562,200	3,975,800	3,686,300	3,666,600
<i>Leather goods:</i>					
Entered for consumption	579,000	501,800	521,100	559,700	675,500
Transit and re-export	1,659,800	2,296,700	3,068,700	4,168,800	4,770,000
Total	2,238,800	2,798,500	3,589,800	4,728,500	5,445,500
<i>Tobacco manufactures:</i>					
Entered for consumption	675,500	829,900	791,300	1,177,300	965,000
Transit and re-export	5,056,600	6,735,700	4,728,500	1,225,200	829,900
Total	5,732,100	7,565,600	5,519,800	2,402,500	1,794,900
<i>Arms:</i>					
Entered for consumption					
Transit and re-export	1,008,400	1,605,400	1,756,300	2,238,800	1,437,500
Total	1,008,400	1,605,400	1,756,300	2,238,800	1,437,500
<i>Total manufactures:</i>					
Entered for consumption	59,930,000	66,662,600	84,109,400	83,016,200	76,131,300
Transit and re-export	95,187,600	94,290,100	88,529,100	83,018,800	87,123,800
Total	155,117,600	160,952,700	172,638,500	166,035,000	163,255,100

FRANCE—Continued.

articles imported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
13,124,000	12,022,900	12,815,200	13,973,200	14,089,000	13,064,400	14,532,900	12,892,400
17,812,100	19,568,400	21,807,200	19,454,400	24,791,900	24,375,900	22,388,000	21,268,600
30,486,100	31,532,300	34,122,400	33,427,600	38,850,900	38,040,800	38,920,900	34,161,000
6,908,400	7,384,000	8,163,900	9,572,800	7,816,500	8,318,100	8,221,800	7,051,600
29,702,700	30,378,200	35,105,700	25,205,800	21,673,900	20,882,800	20,342,200	15,420,700
36,612,100	37,712,200	43,270,600	34,778,600	29,490,400	29,200,900	28,564,000	23,372,300
13,259,100	13,162,600	15,269,900	14,861,000	16,269,900	17,756,700	17,188,400	14,571,500
8,395,500	8,723,600	9,916,600	11,945,700	13,066,100	12,544,300	11,408,300	9,514,900
21,654,600	21,896,200	25,186,500	26,807,700	29,336,000	30,301,000	28,544,700	24,086,400
8,144,600	7,295,400	8,125,300	12,853,800	16,906,800	17,949,000	11,590,900	8,434,100
1,042,200	1,698,400	2,046,800	2,161,000	2,759,900	2,007,200	1,563,300	1,100,100
9,198,800	8,993,800	10,171,100	15,015,400	19,666,700	19,956,200	13,162,600	9,534,200
5,114,500	6,388,300	5,654,900	6,446,200	7,179,600	8,106,000	7,025,200	5,867,200
1,858,300	1,814,200	1,980,000	2,258,100	2,547,600	2,393,200	2,528,800	2,238,800
6,870,800	8,203,500	7,564,900	8,704,800	9,727,200	10,499,200	9,568,500	8,104,000
7,932,300	6,755,000	5,940,900	7,218,200	7,198,900	7,835,800	7,628,500	7,488,400
1,547,500	1,910,700	2,068,600	3,358,200	3,049,400	2,854,600	1,177,300	907,100
9,479,800	8,665,700	8,009,500	10,576,400	10,248,300	10,190,400	8,800,800	8,895,500
2,817,800	4,149,500	4,786,400	5,828,600	6,986,600	6,639,200	6,677,800	6,118,100
810,600	849,200	964,300	1,080,800	1,022,900	887,800	807,100	965,000
3,623,400	4,998,700	5,770,700	6,909,400	8,008,500	7,527,000	7,584,900	7,068,100
1,022,900	1,061,500	1,331,700	2,026,500	1,891,400	1,737,000	1,498,100	1,293,100
5,191,700	5,461,900	5,770,700	8,028,800	10,923,800	8,607,800	6,021,600	8,453,400
6,214,600	6,523,400	7,102,400	10,055,800	12,615,200	10,344,800	7,507,700	9,746,500
2,702,000	2,952,900	3,512,600	4,079,400	6,774,800	6,195,300	4,979,400	4,323,200
928,400	1,903,600	1,254,500	1,582,600	1,621,200	1,756,300	1,466,800	1,196,600
3,623,400	3,956,500	4,767,100	6,562,000	8,395,500	7,951,600	6,446,200	5,519,800
2,142,300	3,219,500	1,505,400	1,891,400	2,816,000	2,200,200	1,698,400	1,285,200
1,273,800	1,188,700	2,566,900	2,895,000	3,821,400	4,323,200	3,177,900	2,190,900
3,416,100	3,358,200	4,072,800	4,786,400	6,137,400	6,523,400	5,616,300	3,416,100
443,900	579,000	656,200	617,600	1,080,800	1,100,100	1,022,900	1,003,600
2,354,500	2,777,400	3,300,300	3,496,900	4,381,100	3,512,000	3,261,700	3,223,100
2,798,500	2,856,400	3,956,500	4,114,500	5,461,900	4,612,700	4,284,600	4,226,700
3,667,000	2,798,500	3,358,200	3,995,100	2,991,500	3,435,400	3,358,800	4,381,100
173,700	250,900	308,800	309,700	347,400	366,700	501,500	289,800
3,840,700	3,049,400	3,667,000	4,361,800	3,338,900	3,802,100	3,860,000	4,670,600
2,895,000	2,509,000	3,593,300	3,281,100	2,914,800	1,756,300	2,200,200	1,466,800
2,470,400	2,605,500	3,181,000	4,612,800	3,860,000	2,856,400	1,428,200	772,000
5,365,400	5,114,500	6,774,300	7,893,700	6,774,800	4,612,700	3,628,400	2,288,800
4,670,600	3,877,500	3,705,600	4,574,100	4,053,000	3,088,000	3,049,400	2,817,800
2,412,500	1,544,000	2,451,100	1,351,000	2,161,000	868,500	250,900	270,200
7,083,100	4,921,500	6,156,700	5,925,100	6,214,600	3,956,600	3,300,300	3,068,000
2,398,200	2,991,500	1,949,300	1,872,100	1,659,800	1,331,700	1,601,900	1,080,800
1,312,400	1,717,700	1,717,700	1,910,700	2,103,700	1,621,200	1,100,100	791,800
3,705,600	4,709,200	3,667,000	3,783,800	3,763,500	2,952,900	2,702,000	1,872,100
772,000	762,700	1,003,600	1,177,800	1,775,800	1,466,800	1,312,400	1,351,000
4,670,600	4,998,700	4,902,200	3,531,900	3,975,800	1,466,800	1,132,400	1,138,700
5,442,600	5,756,400	5,905,800	4,709,200	5,751,400	2,933,600	2,624,800	2,489,700
928,400	829,900	907,100	559,700	772,000	772,000	1,138,700	463,200
840,200	907,100	849,200	829,900	1,042,200	1,370,300	1,138,700	1,177,800
1,775,600	1,737,000	1,756,800	1,389,600	1,814,200	2,142,300	2,277,400	1,040,500
1,196,600	1,872,100	2,045,800	1,601,900	1,408,900	1,351,000	1,215,900	1,138,100
1,196,600	1,871,100	2,045,800	1,601,900	1,408,900	1,351,000	1,215,900	1,138,100
78,937,000	77,280,700	82,379,500	95,728,100	102,676,000	103,852,000	94,666,500	82,739,100
83,896,800	88,620,300	101,707,400	95,673,800	104,528,800	93,548,600	81,623,500	72,046,800
162,836,800	165,901,000	183,968,900	191,401,700	207,204,800	196,898,600	176,596,000	154,785,400

FRANCE—Continued.

Value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
<i>All other articles:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Entered for consumption	76,617,500	78,444,100	77,547,400	71,158,400	86,209,600
Transit and re-export	17,939,700	18,862,200	20,052,500	85,709,700	20,845,700
Total	94,557,200	97,406,300	97,599,900	106,868,100	107,055,300
TOTAL IMPORTS:					
Entered for consumption	686,076,400	676,988,100	682,583,100	709,761,200	708,271,400
Transit and re-export	197,168,800	176,556,400	178,544,360	177,637,200	173,719,300
Total	883,245,200	853,544,500	861,127,460	747,398,400	881,990,700

Value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Alimentary products.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Wines:					
French products	54,290,900	44,254,900	47,767,500	40,838,900	42,614,400
Foreign products	1,188,700	1,563,300	926,400	887,800	907,100
Total	55,479,600	45,818,200	48,693,900	41,726,600	43,521,500
Butter and cheese:					
French products	15,826,000	17,427,800	17,889,800	21,017,700	19,840,400
Foreign products	1,460,800	1,650,800	3,858,200	1,438,200	1,406,800
Total	17,286,800	19,078,600	20,748,000	22,455,900	21,247,200
Cereals:					
French products	33,775,000	26,884,900	89,121,100	28,351,700	36,727,900
Foreign products	22,079,200	14,552,200	7,334,000	12,795,900	9,090,300
Total	55,854,200	41,437,100	96,455,100	41,147,600	45,818,200
Brandy, spirits, and liquors:					
French products	19,975,400	13,838,300	15,943,500	20,361,500	12,023,400
Foreign products	579,000	638,200	405,800	501,800	1,177,800
Total	20,554,400	14,476,500	16,349,300	20,863,300	13,201,200
Coffee:					
French products					
Foreign products	9,264,000	12,448,500	13,896,000	11,502,800	9,881,600
Total	9,264,000	12,448,500	13,896,000	11,502,800	9,881,600
Refined sugars:					
French products	23,410,900	27,097,200	29,355,300	26,093,600	25,360,200
Foreign products	510,400	135,100	2,161,800	173,700	
Total	23,921,300	27,232,300	31,517,100	26,267,300	25,360,200
Table fruit:					
French products	5,456,600	7,739,300	7,604,200	4,767,100	7,237,500
Foreign products	289,500	405,300	308,800	2,412,500	808,800
Total	5,746,100	8,144,600	7,913,000	7,179,600	8,046,300
Eggs of all kinds:					
French products	6,890,100	7,295,400	8,974,500	8,839,400	7,834,000
Foreign products		19,300	77,200	173,700	945,700
Total	6,890,100	7,314,700	9,051,700	9,013,100	8,779,700
Live animals:					
French products					
Foreign products					
Total					
Entered with horses and mules for these years.					
Fish:					
French products	6,542,700	4,998,700	5,828,600	5,693,500	5,558,400
Foreign products	231,600	212,300	193,000	808,800	250,900
Total	6,774,300	5,211,000	6,021,600	6,502,300	5,809,300
Olive oil:					
French products	*2,161,600	*2,373,900	*2,644,100	*3,995,100	*3,435,400
Foreign products	2,509,000	2,568,900	3,512,600	3,030,100	4,439,000
Total	4,670,600	4,942,800	6,156,700	7,025,200	7,874,400
Grease of all sorts:					
French products	3,049,400	2,489,700	3,319,600	3,882,800	4,516,200
Foreign products	965,000	1,100,100	1,351,000	843,900	364,700
Total	4,014,400	3,589,800	4,670,600	4,726,700	4,880,900
Meats of all kinds:					
French products	791,300	733,400	810,600	829,900	675,500
Foreign products	184,400	193,000	270,200	270,200	794,800
Total	975,700	926,400	1,080,800	1,100,100	1,470,300
Unrefined sugars:					
French products	8,646,400	12,911,700	10,229,000	6,002,300	8,530,600
Foreign products	1,582,600	907,100	1,505,400	849,000	1,775,600
Total	10,229,000	13,818,800	11,734,400	6,851,300	10,306,200
Total alimentary products:					
French products	179,816,300	167,548,300	188,887,300	170,873,400	173,853,900
Foreign products	40,800,200	36,419,100	35,299,700	34,678,400	31,673,500
Total	220,616,500	203,967,400	224,187,000	205,551,800	205,527,400

* Including oils from grains, &c.

FRANCE—Continued.

articles imported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
87,486,200	89,510,600	105,582,300	111,737,600	124,504,900	122,708,900	110,434,700	104,586,700
18,747,600	26,971,600	29,347,500	29,425,000	18,767,100	30,89,400	25,881,200	24,038,400
106,233,800	116,482,200	134,929,800	141,152,600	153,271,400	153,588,300	136,315,900	126,625,100
306,006,600	306,873,600	371,407,600	338,636,200	330,007,400	327,229,900	338,595,500	769,061,200
176,151,100	184,331,300	208,401,400	218,630,400	220,039,800	208,908,200	172,831,500	162,428,800
962,167,700	1,081,204,900	1,179,809,000	1,157,266,600	1,150,646,700	1,136,133,100	1,011,127,000	951,490,000

articles exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
38,812,300	49,738,100	47,804,300	48,790,400	47,613,100	45,644,500	45,798,900	49,388,700
1,158,000	1,889,800	1,833,500	2,200,200	2,180,900	1,582,900	1,891,400	1,466,900
39,970,300	51,135,700	49,187,800	50,990,600	49,794,000	47,227,100	47,690,300	50,855,500
16,887,500	14,011,800	17,427,900	17,775,800	23,595,100	20,631,700	21,094,900	19,280,700
1,794,900	2,805,500	3,126,800	3,609,100	2,652,900	2,779,200	2,721,300	2,624,800
18,682,400	16,617,300	20,554,500	21,384,400	26,248,000	23,410,900	23,816,200	21,905,500
10,653,400	8,492,000	12,081,800	18,892,900	10,962,400	11,116,800	8,665,700	6,677,800
14,012,000	17,678,800	14,185,500	13,181,900	16,964,700	12,941,500	7,314,700	5,925,100
24,665,400	26,170,800	26,267,500	31,574,800	27,927,100	23,768,300	15,960,400	12,602,900
14,069,700	19,936,900	15,555,800	14,822,400	13,181,900	14,146,900	14,069,700	14,610,100
1,737,000	2,644,100	2,354,600	2,123,000	1,794,900	1,840,500	1,042,200	1,188,700
15,806,700	22,581,000	17,910,400	16,945,400	14,976,800	15,787,400	15,111,900	15,748,900
10,383,400	12,831,000	9,572,800	12,641,500	9,978,100	15,169,800	12,815,200	14,011,800
10,383,400	12,931,000	9,572,800	12,641,500	9,978,100	15,169,800	12,815,200	14,011,800
23,102,100	19,454,400	17,910,400	16,134,800	16,096,200	15,594,400	11,387,000	6,446,200
96,500	115,800	135,100	270,200	115,800	173,700	115,800	191,000
23,198,600	19,574,200	18,045,500	16,405,000	16,212,000	15,768,100	11,502,800	6,639,200
5,654,900	5,326,800	6,523,400	6,716,400	8,414,800	6,021,800	8,241,100	8,916,000
270,300	791,300	675,500	650,200	656,200	1,870,300	791,300	1,061,500
5,926,100	6,118,100	7,198,900	7,372,600	9,071,900	7,391,900	9,032,400	9,974,100
6,870,800	6,291,800	5,790,000	5,693,500	5,481,200	5,963,700	5,847,900	5,597,000
1,621,200	1,659,800	1,775,600	1,698,400	1,408,900	2,277,400	2,547,000	2,451,100
8,492,000	7,931,600	7,565,600	7,391,900	6,890,100	8,241,100	8,393,500	8,048,100
	3,877,500	3,956,500	5,751,400	7,213,200	6,291,800	6,154,700	5,095,200
	926,400	810,600	598,800	695,200	819,200	604,300	521,100
	4,308,900	4,767,100	6,349,700	7,913,000	7,141,000	6,765,000	5,616,300
6,465,500	7,334,000	7,160,800	6,851,500	5,519,800	7,372,600	5,905,800	5,384,700
115,900	135,100	386,000	424,600	443,900	618,100	598,300	849,200
6,581,300	7,469,100	7,546,800	7,276,100	5,963,700	7,990,700	6,504,100	6,236,900
*3,396,800	963,000	1,100,100	965,000	965,000	1,017,900	1,563,300	1,563,300
3,319,600	1,719,700	1,717,700	1,949,800	1,949,800	2,031,500	2,373,900	2,580,200
6,716,400	2,682,700	2,817,800	2,914,300	2,914,300	3,049,400	3,967,200	4,149,500
4,439,000	5,075,900	4,574,100	2,547,800	6,079,500	4,246,900	3,184,500	2,624,800
896,700	636,200	753,700	57,900	694,800	636,900	462,500	463,200
4,895,700	5,732,100	5,326,800	2,005,500	6,774,800	4,882,900	3,667,000	3,068,000
559,700	2,142,900	2,385,300	2,288,800	3,254,000	2,393,200	2,509,000	2,489,700
794,800	694,800	501,800	667,800	1,119,400	617,600	617,600	659,900
1,354,500	2,837,100	2,837,100	3,126,600	2,474,000	3,010,800	3,126,600	3,126,600
5,577,700	2,588,200	2,983,600	4,682,000	4,602,200	5,442,600	1,961,400	289,500
598,300	899,900	598,300	694,800	696,900	810,600	899,900	434,600
6,176,000	3,416,100	3,581,900	5,326,800	5,539,100	6,258,100	3,258,100	714,100
136,498,400	144,728,700	144,653,500	151,812,000	152,384,000	145,883,700	136,309,900	132,384,800
26,283,400	44,778,000	38,426,900	40,988,200	41,291,500	43,198,900	34,285,800	34,354,000
172,757,800	189,506,700	183,079,800	192,805,200	193,675,500	189,682,600	170,595,700	162,718,800

* Including oils from grains, &c.

FRANCE—Continued.

Value of principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Materials necessary to industry.</i>					
Silk:	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
French product.....	19,357,900	18,603,200	23,669,000	33,215,300	23,140,700
Foreign product.....	17,891,100	16,694,500	14,552,200	23,449,500	15,710,200
Total.....	37,249,000	35,297,700	40,221,200	56,664,800	38,850,900
Wools:					
French product.....	16,713,800	20,110,600	16,231,300	14,436,400	14,880,300
Foreign product.....	984,300	1,312,400	1,486,100	1,852,800	1,022,900
Total.....	17,698,100	21,423,000	17,717,400	16,289,200	15,903,200
Hides and pelts:					
French product.....	6,832,200	7,507,700	7,932,300	7,604,200	8,125,800
Foreign product.....	1,468,800	2,316,000	1,872,100	1,312,400	1,428,200
Total.....	8,299,000	9,823,700	9,804,400	8,916,600	9,553,900
Cotton:					
French product.....	13,181,900	13,818,500	10,036,000	15,227,700	13,780,200
Foreign product.....	8,396,800	2,740,600	2,354,600	2,952,900	8,334,900
Total.....	16,578,700	16,559,100	12,390,600	18,180,600	17,119,100
Oils, from grains, fruits, &c.:					
French product.....	Entered with olive oil during these years.....				
Foreign product.....					
Total.....					
Wools, common:					
French product.....	6,465,500	6,370,800	7,990,200	8,565,900	7,469,100
Foreign product.....	2,412,500	2,354,600	443,900	80,500	135,144
Total.....	8,878,000	8,725,400	8,434,100	8,646,400	7,604,200
Horses and mules:					
French product.....	*14,580,800	*14,725,900	*15,575,100	*14,031,200	*12,823,700
Foreign product.....	328,100	540,400	548,800	654,000	1,746,000
Total.....	14,918,900	15,266,300	16,123,900	14,685,200	14,569,700
Copper:					
French product.....	2,103,700	2,566,900	1,949,300	1,423,200	1,061,500
Foreign product.....	154,400	173,700	501,800	521,100	791,800
Total.....	2,258,100	2,740,600	2,451,100	1,944,300	1,853,300
Building materials:					
French product.....	2,837,100	2,624,800	3,242,400	2,895,000	2,816,000
Foreign product.....	77,200	38,600	19,300	58,600	89,600
Total.....	2,914,300	2,663,400	3,261,700	2,953,600	2,905,600
Seed-grains:					
French product.....					
Foreign product.....					
Total.....					
Flax and hemp:					
French product.....	3,705,600	3,261,700	3,821,400	2,914,200	3,281,000
Foreign product.....	675,500	328,100	443,900	328,100	403,200
Total.....	4,381,100	3,589,800	4,265,300	3,242,400	3,684,200
Coal and coke:					
French product.....	2,644,100	2,316,000	2,065,700	2,239,800	1,833,500
Foreign product.....	1,948,300	1,254,500	1,428,200	1,235,200	1,812,400
Total.....	4,592,400	3,570,500	3,493,900	3,475,000	3,645,900
Rags:					
French product.....	2,354,600	2,412,500	2,682,700	2,682,700	2,566,000
Foreign product.....	19,300	19,300	19,300	173,700	828,100
Total.....	2,373,900	2,431,800	2,702,000	2,856,400	2,895,000
Iron and steel:					
French product.....	5,828,600	4,844,300	1,737,000	1,177,300	752,700
Foreign product.....	3,319,600	4,644,300	5,268,900	4,303,900	3,088,000
Total.....	9,148,200	9,488,600	7,005,900	5,481,200	3,840,700
Oil cake:					
French product.....	2,335,300	2,798,500	3,281,000	3,126,600	2,566,900
Foreign product.....	19,300				
Total.....	2,354,600	2,798,500	3,281,000	3,126,600	2,566,900
Hair of all sorts:					
French product.....	1,987,900	2,470,400	2,161,600	1,814,200	1,949,300
Foreign product.....	443,900	896,000	896,000	896,000	483,500
Total.....	2,431,800	3,366,400	3,057,600	2,710,200	2,432,800
Indigo:					
French product.....	1,196,600	1,080,800	521,100	1,042,200	675,500
Foreign product.....	173,700	907,100	521,100	521,100	424,600
Total.....	1,370,300	1,987,900	1,042,200	1,563,300	1,100,100
Saffron:					
French product.....	752,700	468,200	613,600	347,400	579,000
Foreign product.....	791,300	656,200	891,900	521,100	849,300
Total.....	1,544,000	1,124,400	1,505,500	868,500	1,428,300
Oleaginous grain and fruit:					
French product.....	1,698,400	2,856,400	2,721,300	1,910,700	1,940,800
Foreign product.....	173,700	154,400	173,700	173,700	540,400
Total.....	1,872,100	3,010,800	2,895,000	2,084,400	2,481,200

* Including oxen, sheep, &c.

FRANCE—Continued.

exported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
23,002,800	20,609,800	20,223,800	38,040,300	39,603,600	28,371,000	29,953,600	23,372,300
17,630,900	14,643,700	14,687,300	18,741,700	13,490,700	9,611,400	12,738,000	7,463,100
42,633,700	45,258,500	44,911,100	56,742,000	53,094,300	37,982,400	42,691,600	30,841,400
17,312,100	22,619,600	25,572,500	20,380,800	18,373,600	16,354,800	18,528,000	17,551,400
772,000	1,270,800	1,659,800	1,524,700	1,466,807	1,794,900	2,103,700	2,101,700
18,084,100	23,889,900	27,232,300	21,905,500	19,840,400	20,149,200	20,631,700	19,628,100
8,279,700	14,171,100	12,004,600	12,525,700	15,247,000	15,015,400	18,143,800	12,448,500
1,351,000	1,408,900	1,640,500	2,065,100	1,830,000	1,891,400	1,794,900	2,393,200
9,639,700	11,580,000	13,645,100	14,590,800	17,177,000	16,906,800	14,938,200	14,841,700
15,208,400	12,911,700	13,413,500	12,371,800	8,589,200	7,604,200	7,384,000	6,272,500
3,030,100	3,396,800	3,388,300	4,805,700	4,098,700	2,837,100	4,670,600	2,702,000
18,238,500	16,398,500	19,801,800	17,177,000	13,567,900	10,441,800	12,004,600	8,974,500
	1,891,400	2,200,200	2,779,200	3,958,500	3,686,800	4,303,900	4,844,300
	2,833,300	1,833,544	1,640,500	1,466,800	1,775,600	2,006,500	1,784,900
	4,226,700	4,033,700	4,419,700	5,423,800	5,461,900	1,330,400	6,639,200
6,398,100	6,002,800	6,716,400	6,118,100	5,249,600	5,442,600	5,654,900	5,087,100
110,000	173,700	193,000	173,700	193,000	77,200	135,100	135,100
6,504,100	6,176,000	6,909,400	6,291,800	5,442,600	5,519,800	5,790,000	5,172,400
8,646,400	8,107,300	4,056,500	4,284,600	4,207,400	5,790,000	5,461,900	6,697,100
2,296,700	270,200	19,300	212,300	57,900	424,600	231,600	154,400
10,943,100	3,377,500	4,075,800	4,496,900	4,263,300	6,214,600	5,693,500	6,861,500
1,601,900	1,752,700	1,872,100	2,316,000	1,679,100	3,551,200	3,416,100	2,740,100
598,300	1,254,500	1,022,900	1,119,400	1,737,000	1,273,800	752,700	598,300
2,200,200	2,007,200	2,895,000	3,435,400	3,416,100	4,825,000	4,168,800	3,338,900
2,161,000	2,431,800	2,617,900	3,088,000	3,493,300	3,531,900	3,937,200	3,686,300
88,600	19,300	88,600	19,300	19,300	19,300	19,300	19,300
2,200,200	2,451,100	2,866,400	3,107,300	3,512,600	3,551,200	3,956,500	3,705,600
	3,107,300	2,759,900	3,165,200	5,018,000	5,616,300	3,782,800	3,068,700
	2,798,500	38,600	115,800	38,600	38,600	57,900	38,600
	3,145,900	2,798,500	3,281,000	5,056,600	5,634,900	3,840,700	3,107,300
2,277,400	2,779,200	3,203,800	2,451,100	2,142,300	2,161,000	2,721,700	2,972,200
559,700	714,100	791,300	1,100,100	926,400	1,196,600	1,061,500	1,273,800
2,837,100	3,483,300	3,995,100	3,551,200	3,068,700	3,358,200	3,782,800	4,246,000
1,486,100	1,312,400	1,787,000	1,737,000	1,670,100	1,466,800	1,428,200	1,370,300
1,138,700	1,489,600	1,521,600	1,833,500	1,987,900	1,930,000	1,756,300	1,582,600
2,624,900	2,702,000	3,261,700	3,570,500	3,667,000	3,396,800	3,184,500	2,952,900
2,682,700	2,952,900	3,995,100	4,207,400	4,400,400	4,110,900	3,080,100	4,844,300
96,500	77,200	115,800	135,100	96,500	173,700	77,200	57,900
2,779,200	3,080,100	4,110,900	4,842,400	4,496,900	4,281,600	3,107,300	4,902,200
656,200	501,800	772,000	579,000	347,400	501,800	308,800	945,700
3,120,600	2,914,300	3,435,400	3,670,500	3,724,900	3,377,500	2,779,200	3,319,600
3,782,800	3,416,100	4,207,400	3,140,500	4,072,300	3,879,300	3,088,000	4,263,300
2,296,700	2,412,500	2,856,400	3,165,200	2,509,000	2,991,500	2,837,100	2,837,100
		88,600	19,300	403,800		96,500	
2,296,700	2,412,500	2,893,000	3,184,500	2,914,300	2,991,500	2,933,600	2,837,100
1,891,400	2,200,200	2,296,700	2,682,700	2,779,200	2,837,100	2,180,900	1,698,400
347,400	289,500	280,500	280,500	328,100	135,100	289,500	193,000
2,238,900	2,489,700	2,580,200	2,972,200	3,107,300	2,972,200	2,470,400	1,891,400
1,293,100	1,852,800	1,293,100	1,428,200	1,100,100	1,293,100	926,400	1,100,100
289,500	328,100	501,800	463,200	403,800	388,000	714,100	714,100
1,582,600	2,180,900	1,794,900	1,891,400	1,505,400	1,679,100	1,640,500	1,814,200
829,900	772,000	675,500	617,600	463,200	347,400	405,300	540,400
617,600	579,000	675,500	733,400	829,900	752,700	347,400	261,500
1,447,500	1,851,000	1,351,000	1,851,000	1,293,100	1,100,100	752,700	829,900
984,300	328,100	424,600	306,700	347,400	386,000	540,400	463,200
193,000	193,000	57,900	154,400	154,400	135,100	96,500	151,400
1,177,300	621,100	482,500	621,100	501,800	521,100	636,900	617,600

FRANCE—Continued.

Value of principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Materials necessary to industry—Cont'd.</i>					
Total materials necessary to industry:	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
French product	104,586,700	109,334,500	108,330,400	114,658,200	99,250,900
Foreign product	84,276,800	84,720,700	81,154,200	88,487,900	81,689,600
Total	188,863,500	144,055,200	189,484,600	153,146,500	180,950,500
<i>Manufactures.</i>					
Woolen goods:					
French product	62,898,700	63,304,000	66,853,200	61,684,500	62,744,300
Foreign product	14,475,000	11,773,000	13,239,800	12,101,100	10,844,800
Total	77,373,700	75,077,000	80,093,000	73,785,600	73,589,100
Silk goods:					
French product	92,369,800	86,328,800	72,763,100	57,108,700	50,025,600
Foreign product	31,574,800	30,667,700	27,174,400	30,438,100	32,366,100
Total	123,944,600	110,996,500	99,877,500	87,546,800	82,391,700
Cotton goods:					
French product	14,880,300	14,050,400	15,729,500	12,757,300	13,004,600
Foreign product	14,108,300	16,906,800	15,768,100	13,510,000	12,355,600
Total	28,988,600	30,957,200	31,497,600	26,267,300	25,360,200
Leather goods:					
French product	26,228,700	28,409,600	33,446,900	30,397,500	29,200,900
Foreign product	2,932,900	3,184,500	4,149,500	4,593,400	4,998,700
Total	29,161,600	31,594,100	37,596,400	34,990,900	34,199,600
Toys, mercery, and fancy articles:					
French product	35,606,400	35,627,800	34,952,300	34,063,800	30,339,600
Foreign product	2,084,400	1,563,300	1,814,200	2,065,100	1,679,100
Total	37,750,800	37,191,100	36,766,500	36,148,900	32,018,700
Prepared hides and skins (leather):					
French product	18,450,800	19,647,400	17,273,500	14,978,800	15,564,600
Foreign product	2,316,000	2,875,700	2,393,200	2,007,200	2,277,400
Total	20,766,800	22,523,100	19,666,700	16,986,000	18,142,000
Jewelry and jeweler's ware:					
French product	9,746,500	9,785,100	11,676,500	10,325,500	12,409,900
Foreign product	11,734,400	6,060,200	4,381,100	3,088,000	3,917,900
Total	21,480,900	15,845,300	16,057,600	13,413,500	16,327,800
Tools and hardware:					
French product	19,164,900	19,029,800	13,625,800	13,996,000	11,251,900
Foreign product	7,990,200	7,546,300	7,469,100	6,774,300	6,966,600
Total	27,155,100	26,576,100	21,094,900	20,670,300	18,238,500
Clothing (linen and other):					
French product	17,196,300	13,606,500	16,617,300	17,505,100	16,694,500
Foreign product	1,298,100	984,300	694,800	698,300	617,600
Total	18,489,400	14,590,800	17,312,100	18,203,400	17,312,100
Chemical products:					
French product	8,627,100	9,148,200	8,839,400	9,206,100	9,418,400
Foreign product	96,500	347,400	579,000	636,900	1,254,500
Total	8,723,600	9,495,600	9,418,400	9,843,000	10,672,900
Machines and machinery:					
French product	5,211,000	4,988,700	4,825,000	4,400,400	4,014,400
Foreign product	1,910,700	2,017,200	2,200,200	3,319,000	2,528,300
Total	7,121,700	7,005,900	7,025,200	7,720,000	6,542,700
Paper, and manufactures of:					
French product	10,074,600	10,036,000	11,348,400	10,730,800	10,151,800
Foreign product	984,300	829,900	868,500	701,300	1,022,900
Total	11,058,900	10,865,900	12,216,900	11,522,100	11,174,700
Pottery, porcelain, and glassware:					
French product	11,657,200	11,251,900	11,590,000	10,151,800	8,974,500
Foreign product	907,100	810,600	849,200	1,042,200	965,000
Total	12,564,300	12,062,500	12,429,200	11,194,000	9,939,500
Clocks and watches:					
French product	3,281,000	3,377,500	3,358,200	3,388,900	3,123,100
Foreign product	3,136,000	2,933,600	2,624,800	2,393,200	2,087,900
Total	6,407,600	6,311,100	5,983,000	5,782,100	5,211,000
Woolen yarn and thread:					
French product	6,040,900	7,121,700	7,662,100	5,519,800	5,172,400
Foreign product	133,100	115,800	270,200	212,300	154,400
Total	6,176,000	7,237,500	7,932,300	5,732,100	5,326,800
Fashions and artificial flowers:					
French product	7,237,500	4,805,700	8,144,400	6,909,400	7,063,800
Foreign product	7,237,500	1,949,300	19,300	19,300	19,300
Total	7,237,500	6,755,000	8,163,900	6,928,700	7,083,100
Linen and hempen yarn:					
French product	3,010,800	3,609,100	2,451,100	1,373,800	1,061,500
Foreign product	1,158,000	1,563,800	1,293,100	1,138,700	1,080,800
Total	4,168,800	5,172,400	3,744,200	2,512,500	2,142,300

FRANCE—Continued.

exported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 98,998,800 82,202,600 131,201,400	<i>Dollars.</i> 108,716,900 81,801,100 140,018,000	<i>Dollars.</i> 118,911,600 24,922,200 143,833,800	<i>Dollars.</i> 124,304,100 88,677,200 160,981,300	<i>Dollars.</i> 121,185,400 84,257,500 155,422,900	<i>Dollars.</i> 113,059,400 27,880,600 140,890,000	<i>Dollars.</i> 109,894,200 81,748,500 141,642,700	<i>Dollars.</i> 102,463,700 24,993,500 127,457,200
60,370,400 8,356,900 68,727,300	59,694,900 11,695,900 71,390,700	71,448,600 12,601,500 84,050,100	69,615,100 14,687,300 84,302,400	77,566,700 18,297,700 90,864,400	71,429,300 12,911,700 84,341,000	64,519,900 11,830,900 76,350,800	63,709,300 9,785,100 73,494,400
48,800,700 38,950,000 77,759,700	43,753,100 30,571,200 74,324,300	45,219,900 35,887,400 81,107,300	47,304,300 25,360,200 72,664,500	55,912,100 21,078,900 77,586,000	58,181,600 21,056,300 79,187,900	45,702,400 20,303,600 66,006,000	44,756,700 13,894,200 58,150,900
10,904,500 12,294,100 28,198,600	12,296,200 19,531,000 81,767,800	15,266,300 21,480,900 36,747,200	17,422,600 23,603,900 40,628,500	18,875,400 24,839,900 43,714,500	17,427,900 24,830,100 42,267,000	17,583,000 22,581,000 40,144,000	19,724,600 21,230,000 40,954,600
30,918,600 5,114,500 36,033,100	28,621,900 5,183,900 33,755,700	31,632,700 5,539,100 37,171,800	32,617,000 3,705,600 36,322,600	30,204,500 4,381,100 34,585,600	27,886,700 1,910,700 29,297,400	25,321,600 1,794,900 27,116,500	25,939,200 1,815,900 27,155,100
30,262,400 1,601,500 31,864,300	33,022,300 2,354,600 35,376,900	35,724,800 2,026,500 37,750,300	34,778,600 2,586,200 37,364,800	24,993,500 2,817,800 27,811,300	25,860,200 2,893,200 27,744,600	22,870,500 1,891,400 24,761,900	22,754,700 2,123,000 24,858,400
16,405,600 1,601,900 18,000,900	18,547,300 2,004,200 20,551,500	17,775,300 2,026,200 19,781,500	19,838,600 2,198,400 21,538,000	19,975,500 2,817,800 22,793,300	20,458,000 2,893,200 22,851,200	21,191,400 2,566,900 23,758,300	20,129,900 2,123,000 22,252,900
12,023,900 8,398,600 15,922,500	9,088,600 4,040,800 14,029,400	10,557,100 6,080,200 16,617,300	13,124,000 8,414,800 21,538,800	12,795,900 10,409,200 23,295,100	15,478,600 8,299,000 23,777,600	14,146,900 6,008,800 20,245,700	8,279,700 8,492,000 16,771,700
13,066,100 6,272,500 19,338,600	13,085,400 6,214,600 19,300,000	12,776,600 6,213,000 20,689,600	13,625,800 8,028,800 21,654,600	12,878,100 9,379,800 22,252,900	16,173,400 8,665,700 24,839,100	12,062,500 6,716,400 18,778,900	11,887,700 5,674,200 17,041,900
16,436,400 579,000 15,015,400	13,066,100 540,400 13,606,500	15,497,900 772,000 16,269,900	17,910,400 328,100 18,238,500	14,260,700 851,200 15,111,900	12,506,400 772,000 13,278,400	14,455,700 521,100 14,976,800	13,529,300 402,500 14,011,800
9,804,400 1,100,100 10,904,500	11,251,900 1,254,600 12,506,400	10,948,100 2,335,300 13,278,400	11,348,400 2,586,200 13,934,600	12,060,800 2,702,000 15,362,800	12,210,900 2,893,200 14,610,100	12,101,100 1,300,100 13,401,200	10,113,200 1,196,600 11,309,800
4,226,700 3,010,800 7,237,500	4,439,000 4,168,900 8,607,800	4,612,700 4,728,500 9,341,200	5,018,000 4,496,900 9,514,900	5,404,000 4,805,700 10,209,700	5,461,900 5,577,700 11,039,600	6,037,400 5,175,900 11,213,300	5,230,300 8,763,500 8,993,800
9,380,500 714,100 10,074,600	9,225,400 907,100 10,132,500	10,597,700 982,300 11,580,000	10,730,800 1,080,800 11,811,600	10,093,900 1,061,500 11,155,400	10,171,100 887,800 11,058,900	9,109,600 849,200 9,958,800	8,646,400 968,500 9,514,900
8,356,900 1,003,600 9,360,500	7,372,600 1,177,800 8,549,900	7,970,900 1,235,200 9,206,100	7,623,500 1,293,100 8,916,600	7,546,300 1,235,200 8,781,500	7,797,200 1,158,000 8,955,200	7,063,800 1,100,100 8,163,900	6,870,800 926,400 7,797,200
3,261,700 1,980,000 5,191,700	2,957,900 2,123,000 5,075,900	2,300,300 2,605,500 5,905,800	3,165,200 3,088,000 6,253,200	4,400,400 4,670,000 9,071,000	3,667,000 3,744,200 7,411,200	3,261,700 3,454,700 6,716,400	3,788,800 3,569,500 7,358,300
7,179,600 173,700 7,353,300	8,434,100 231,600 8,665,700	9,514,900 308,800 9,823,700	7,353,300 250,900 7,604,200	7,700,700 308,800 8,009,500	6,677,800 289,500 6,967,300	6,283,900 424,600 6,658,500	6,928,700 231,600 7,160,300
5,828,600 19,300 5,847,900	5,909,300 19,300 5,828,600	6,253,200 19,300 6,272,500	8,704,300 96,500 8,800,800	7,449,800 7,449,800 8,500,800	7,005,900 7,005,900 7,005,900	5,346,100 5,346,100 5,346,100	5,191,700 19,300 5,211,000
965,000 1,254,600 2,219,500	1,235,300 1,183,700 2,378,900	1,158,000 2,547,600 3,705,600	1,008,600 2,875,700 3,879,300	849,200 3,802,100 4,651,300	810,600 3,150,500 3,961,100	1,061,500 4,921,400 4,982,900	1,068,400 2,084,400 3,782,800

FRANCE—Continued.

Value of principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Tissues of flax and hemp:					
French product	4,940,800	5,618,300	6,851,500	6,118,100	6,079,500
Foreign product	2,986,100	3,647,700	2,598,900	1,831,700	1,881,700
Total	8,926,900	9,266,000	9,450,400	7,949,800	7,961,200
Extracts of dye-woods:					
French product					
Foreign product					
Total					
Prepared medicines:					
French product	2,837,100	2,200,200	1,049,300	1,775,600	1,833,500
Foreign product	77,200	57,900	88,600	57,900	77,200
Total	2,914,300	2,258,100	1,087,900	1,833,500	1,910,700
Perfumery:					
French product	2,277,400	1,659,800	1,389,600	1,177,300	1,486,100
Foreign product	115,800	57,900	88,600	38,600	88,600
Total	2,393,200	1,717,700	1,428,200	1,215,900	1,524,700
Candles:					
French product	1,851,000	1,447,500	1,563,800	732,400	482,500
Foreign product	482,500	154,400	173,700	636,200	1,582,600
Total	1,838,500	1,601,900	1,737,500	1,368,600	2,065,100
Hats of felt, linen, and silk:					
French product	2,128,000	1,794,900	1,891,400	2,045,800	2,335,800
Foreign product	185,100	77,200	115,800	115,800	77,200
Total	2,258,100	1,872,100	2,007,200	2,161,600	2,412,500
Colors:					
French product	2,007,200	2,084,400	1,987,900	2,007,200	1,949,300
Foreign product	193,000	193,000	173,700	115,800	115,800
Total	2,200,200	2,277,400	2,161,600	2,123,000	2,065,100
Musical instruments:					
French product	2,238,800	2,489,700	2,528,300	2,290,700	2,296,700
Foreign product	37,900	88,600	57,900	57,900	37,900
Total	2,296,700	2,528,300	2,586,200	2,348,600	2,354,600
Cotton thread and yarn:					
French product	1,582,600	1,022,900	752,700	752,700	617,600
Foreign product	810,600	829,900	1,215,900	1,119,400	650,200
Total	2,393,200	1,852,800	1,968,600	1,872,100	1,273,800
Fire-arms and weapons:					
French product	1,112,400	2,200,200	2,568,900	984,300	849,200
Foreign product	1,100,100	1,061,500	1,524,700	772,000	907,100
Total	2,219,500	3,261,700	4,093,600	1,756,300	1,756,300
Soaps:					
French product	1,814,200	1,794,900	1,717,700	1,891,400	1,891,400
Foreign product		19,300	19,300	19,300	19,300
Total	1,814,200	1,814,200	1,737,000	1,910,700	1,910,700
Tobacco, manufactured:					
French product	2,509,000	115,800	493,200	468,200	347,400
Foreign product	1,544,000	6,812,900	4,979,400	1,080,800	819,200
Total	4,053,000	6,928,700	5,442,600	1,549,000	1,166,600
Parisian articles:					
French product	1,949,300	2,142,300	1,659,800	1,930,000	1,794,900
Foreign product					
Total	1,949,300	2,142,300	1,659,800	1,930,000	1,794,900
TOTAL MANUFACTURES:					
French product	378,492,300	362,694,900	365,410,500	325,841,900	312,479,200
Foreign product	105,338,700	105,079,200	97,693,000	90,092,400	90,869,700
Total	483,831,000	467,774,100	463,103,500	415,934,300	403,348,900
All other articles:					
French product	64,553,600	74,739,600	85,383,600	78,898,000	77,621,900
Foreign product	23,219,300	16,974,000	16,192,300	24,337,900	17,216,700
Total	87,772,900	91,713,600	101,575,900	103,235,900	94,838,600
GRAND TOTAL EXPORTS:					
French product	726,948,900	714,312,300	747,411,800	690,471,500	663,205,900
Foreign product	208,755,000	193,193,000	180,389,200	187,596,000	180,358,500
Total	935,703,900	907,505,300	927,751,000	877,067,500	843,564,400

FRANCE—Continued.

exported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
4,709,200	5,036,600	5,404,000	4,535,500	4,859,800	8,802,100	2,721,800	2,489,700
1,293,110	1,679,100	1,872,100	2,007,200	2,125,000	1,582,600	1,128,700	810,600
6,002,300	6,735,700	7,276,100	6,542,700	6,484,800	5,384,700	3,860,000	3,200,300
-----	135,100	115,800	154,400	135,100	96,500	57,900	2,663,400
-----	3,493,300	3,917,900	3,647,700	3,898,600	3,879,300	3,242,400	77,200
-----	3,628,400	4,033,700	3,802,100	4,433,700	3,975,800	3,300,300	2,740,600
2,007,200	2,045,800	2,373,900	2,431,800	2,470,400	2,431,800	2,470,400	2,180,900
-----	77,200	77,200	77,200	193,000	243,000	19,300	270,200
2,007,200	2,123,000	2,451,100	2,509,000	2,663,400	2,674,800	2,489,700	2,451,100
1,447,500	1,524,700	1,524,700	1,466,800	1,505,400	1,601,900	1,949,300	1,544,000
57,900	88,600	77,200	57,900	77,200	57,900	77,200	77,200
1,505,400	1,563,300	1,601,900	1,524,700	1,582,600	1,659,900	2,026,500	1,621,200
368,800	347,400	328,100	328,100	366,700	386,000	540,400	752,700
1,351,000	1,278,800	1,293,100	1,351,000	1,022,900	1,254,500	1,447,500	1,119,400
1,659,800	1,621,200	1,621,200	1,679,100	1,899,600	1,640,500	1,987,900	1,872,100
2,200,200	1,949,800	1,756,800	1,968,600	2,740,600	1,610,500	1,737,000	1,158,000
77,200	57,900	77,200	154,400	231,600	115,800	96,500	96,500
2,277,400	2,007,200	1,833,500	2,123,000	2,972,200	1,756,800	1,833,500	1,254,500
2,161,600	2,161,600	2,161,600	1,814,200	1,756,800	1,773,600	1,582,600	1,505,400
115,800	173,700	212,300	178,700	178,700	193,000	154,400	154,400
2,277,400	2,335,800	2,373,900	1,987,900	1,930,000	1,968,800	1,737,000	1,659,800
1,987,900	1,930,000	2,219,500	2,007,200	1,987,900	1,756,800	1,582,600	1,889,600
289,500	96,500	115,800	135,100	115,800	154,400	115,800	57,900
2,277,400	2,026,500	2,335,800	2,142,300	2,103,700	1,910,700	1,698,400	1,447,500
463,200	463,200	540,400	482,500	521,100	424,900	443,900	405,800
1,428,200	1,910,700	1,830,000	3,300,300	2,933,600	2,806,000	1,138,700	965,000
1,891,400	2,373,900	2,470,400	3,782,800	3,454,700	2,734,600	1,582,600	1,370,300
1,235,200	1,235,200	1,640,500	984,300	405,300	1,022,900	772,000	1,312,400
308,800	1,100,100	1,196,600	984,300	868,500	887,800	810,600	656,200
1,544,600	2,335,300	2,837,100	1,908,600	1,273,800	1,910,700	1,582,600	1,968,600
2,026,500	1,756,300	1,601,900	1,833,500	1,640,500	1,447,500	1,428,200	1,563,300
10,300	-----	10,300	-----	38,600	-----	-----	-----
2,043,800	1,756,300	1,621,200	1,883,500	1,679,100	1,447,500	1,428,200	1,563,300
347,400	328,100	289,500	828,100	405,300	308,800	250,900	221,600
819,200	965,000	868,500	868,500	1,022,900	1,273,800	1,138,700	1,293,100
1,196,600	1,293,100	1,158,000	1,196,600	1,428,200	1,582,600	1,889,600	1,624,700
1,008,600	1,196,600	2,026,500	463,200	173,700	135,100	250,900	-----
1,003,600	1,196,600	2,026,500	463,200	173,700	135,100	250,900	-----
306,078,700	302,566,100	332,232,200	339,481,700	342,030,600	334,990,100	303,836,400	295,850,700
53,665,500	104,873,200	118,606,500	117,450,300	111,844,000	122,301,100	99,910,600	82,738,100
329,744,200	407,439,300	450,838,700	450,521,000	453,875,500	457,291,200	403,747,200	378,588,800
72,115,200	61,856,300	68,997,500	63,364,200	71,020,000	68,764,900	70,522,200	69,324,600
27,739,500	25,212,500	48,424,100	82,560,800	45,498,100	24,379,400	27,043,400	25,380,500
98,854,700	87,068,800	112,421,600	101,924,500	116,518,100	93,144,300	98,165,600	94,705,100
612,682,100	617,868,000	664,794,800	683,992,000	686,600,000	662,698,100	620,562,700	596,003,800
179,878,000	203,164,800	225,379,000	227,740,000	232,692,000	217,710,000	193,558,500	167,466,100
793,558,100	824,032,800	890,173,800	911,732,000	919,492,000	880,408,100	814,161,200	769,466,400

GERMANY.

Value of imports (merchandise only) for home

Countries.	1873.	1874.	1875.	1876.	1877.	1878.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia						
Norway and Sweden						
Denmark						
Hanse Towns						
Holland						
Belgium						
United Kingdom						
France and Algeria						
Spain and Portugal						
Switzerland						
Austria-Hungary						
Italy						
United States						
Central and South America						
Africa (exclusive of Algeria)						
Asia (exclusive of Asiatic Russia and Turkey)						
Australasia						
All other						
TOTAL IMPORTS						

Value of domestic exports (merchandise)

Countries.	1873.	1874.	1875.	1876.	1877.	1878.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia						
Norway and Sweden						
Denmark						
Hanse Towns						
Holland						
Belgium						
United Kingdom						
France and Algeria						
Spain and Portugal						
Switzerland						
Austria-Hungary						
Italy						
United States						
Central and South America						
Africa						
Asia						
Australasia						
All other						
TOTAL EXPORTS						

GERMANY.

consumption from the principal countries.

1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
.....	80,071,054	79,297,078	92,988,504	97,610,940	98,415,880	83,101,922
.....	5,479,950	6,095,180	6,817,986	6,549,284	7,473,200	7,562,212
.....	6,441,708	5,954,998	5,601,806	5,541,592	5,765,888	5,136,324
.....	116,578,630	136,110,206	131,375,286	132,330,186	132,593,846	115,538,814
.....	45,196,818	58,872,632	64,522,038	56,870,188	56,177,996	51,162,690
.....	46,823,844	51,109,548	56,738,724	64,897,126	69,737,808	66,623,816
.....	83,558,706	86,948,540	94,487,904	114,137,660	120,736,210	107,275,484
.....	58,501,352	60,142,600	58,200,520	59,021,853	58,040,584	51,839,018
.....	8,126,130	2,929,364	3,074,722	3,984,120	3,809,904	4,483,206
.....	83,423,292	86,867,890	41,709,024	42,671,972	36,088,654	32,586,722
.....	96,697,658	103,099,220	119,768,030	113,171,380	101,326,834	91,814,412
.....	15,429,938	13,590,812	12,623,750	14,775,992	19,734,722	17,957,560
.....	43,912,428	42,058,646	27,256,236	32,320,400	29,893,560	28,979,594
.....	13,326,400	7,210,448	14,095,550	15,597,896	18,631,592	17,720,842
.....	4,081,938	3,054,254	3,483,844	2,618,714	3,173,780	2,868,978
.....	15,872,696	6,949,600	8,972,600	9,431,940	7,979,188	7,239,246
.....	1,858,304	1,348,508	841,380	1,181,908	1,379,448	2,186,744
.....	2,841,754	3,645,886	2,273,146	4,038,596	4,214,170	8,228,256
.....	671,826,600	705,194,000	744,821,000	776,760,600	776,070,704	700,786,240

only) to the principal countries.

1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
.....	50,798,244	43,596,602	45,851,652	43,799,378	38,431,286	34,293,420
.....	14,595,588	13,355,532	14,890,232	17,128,146	17,854,249	16,607,164
.....	11,648,672	11,249,846	13,675,718	14,622,958	14,762,188	11,939,848
.....	156,187,262	150,029,012	163,086,168	172,588,080	163,307,838	164,955,182
.....	54,078,830	57,045,490	61,693,448	60,947,040	54,506,998	55,869,270
.....	39,106,494	40,212,718	40,761,550	41,463,884	38,684,758	35,087,110
.....	104,139,994	106,925,784	122,058,062	131,458,586	122,848,196	107,866,686
.....	67,744,320	75,872,734	81,298,182	74,592,532	67,349,002	59,071,862
.....	5,593,714	8,078,196	9,630,194	10,502,464	11,257,876	9,637,618
.....	40,146,554	40,277,692	41,360,830	40,997,166	42,434,686	34,457,640
.....	69,838,682	75,217,758	77,616,560	80,004,652	77,319,530	67,703,622
.....	12,395,754	16,856,350	17,579,870	20,026,748	20,642,216	20,204,756
.....	44,548,840	46,434,990	45,734,794	34,238,442	29,561,266	36,479,710
.....	5,925,724	7,654,355	8,872,878	10,279,458	11,497,166	7,928,114
.....	1,239,504	1,270,632	1,198,806	1,549,856	1,775,480	1,717,130
.....	6,475,266	7,010,528	5,788,780	6,451,704	8,537,536	8,187,200
.....	426,020	791,112	1,647,456	5,347,080	1,502,970	1,861,366
.....	4,716,732	7,700,669	6,603,860	16,795,426	21,497,906	7,336,682
.....	689,105,200	708,526,000	759,339,000	778,788,600	762,766,200	680,751,400

GERMANY—Continued.

Quantities and value of imports

Articles.	1873.	1874.	1875.	1876.	1877.
Animals, except horses.....	{ number.....	.....	1,780,946	2,259,113	2,443,121
	{ dollars.....	.....	83,431,384	88,069,052	45,167,878
Coal.....	{ tons.....	.....	2,063,930	2,320,763	2,233,888
	{ dollars.....	.....	8,929,000	7,960,600	7,711,200
Coffee.....	{ pounds.....	.....	221,650,000	234,080,000	210,760,000
	{ dollars.....	.....	45,458,000	45,696,000	40,936,000
Copper, unwrought.....	{ tons.....	.....	16,280	14,960	14,080
	{ dollars.....	.....	6,667,800	5,807,200	4,712,400
Cotton, raw.....	{ pounds.....	.....	337,700,000	371,800,000	344,300,000
	{ dollars.....	.....	48,314,000	48,409,200	43,316,000
Cotton yarn.....	{ pounds.....	.....	45,980,000	51,260,000	40,260,000
	{ dollars.....	.....	11,376,400	11,495,400	8,877,400
Cotton manufactures.....	{ dollars.....	.....	4,054,140	3,486,700	3,172,540
Flax.....	{ tons.....	.....	62,910	86,300	75,900
	{ dollars.....	.....	10,308,400	7,854,000	14,779,800
Grain and flour.....	{ tons.....	.....	2,370,500	3,327,500	4,018,850
	{ dollars.....	.....	99,484,000	141,520,000	170,408,000
Grease.....	{ pounds.....	.....	53,570,600	73,647,000	79,031,250
	{ dollars.....	.....	6,949,600	9,044,000	8,630,400
Guano.....	{ tons.....	.....	113,850	152,350	134,200
	{ dollars.....	.....	5,902,400	7,901,600	5,807,200
Herring.....	{ barrels.....	.....	705,000	704,227	666,728
	{ dollars.....	.....	5,593,000	6,711,600	6,354,600
Hides, raw.....	{ pounds.....	.....	106,040,000	106,700,000	98,710,000
	{ dollars.....	.....	20,457,052	18,326,953	15,831,761
Horses.....	{ number.....	.....	63,919	87,071	44,701
	{ dollars.....	.....	13,113,800	16,568,600	8,520,400
Indigo.....	{ pounds.....	.....	3,190,000	8,883,000	2,860,000
	{ dollars.....	.....	4,831,400	5,876,600	4,022,200
Iron, pig.....	{ tons.....	.....	666,983	628,285	579,513
	{ dollars.....	.....	12,944,800	10,186,400	8,282,400
Linseed.....	{ pounds.....	.....	97,020,000	126,500,000	122,110,000
	{ dollars.....	.....	2,927,400	3,831,800	3,427,200
Machinery of all kinds.....	{ tons.....	.....	67,945	29,920	43,131
	{ dollars.....	.....	5,317,396	4,182,752	5,367,376
Metal wares.....	{ tons.....	.....	98,450	75,460	225,740
	{ dollars.....	.....	11,271,680	8,608,460	14,399,000
Linseed oil.....	{ dollars.....	.....	4,046,000	4,736,200	3,831,800
Petroleum.....	{ dollars.....	.....	15,874,600	24,762,000	22,681,400
Silk, raw cocoons.....	{ pounds.....	.....	8,008,000	7,997,000	6,985,000
	{ dollars.....	.....	25,942,000	31,178,000	27,132,000
Sugar, raw.....	{ pounds.....	.....	16,500,000	3,080,000	2,420,000
	{ dollars.....	.....	790,348	160,412	140,658
Sugar, refined.....	{ pounds.....	.....	30,540,000	26,400,000	14,520,000
	{ dollars.....	.....	2,313,360	2,038,700	1,259,020
Tobacco, leaf and manufact- ured.....	{ pounds.....	.....	99,000,000	110,440,000	114,840,000
	{ dollars.....	.....	17,921,400	19,492,200	18,684,666
Wine, in casks and bottles.....	{ dollars.....	.....	14,443,220	13,281,628	14,327,600
Wool.....	{ pounds.....	.....	124,300,000	143,000,000	150,700,000
	{ dollars.....	.....	48,314,000	49,504,000	50,456,000
Woolen yarn.....	{ pounds.....	.....	35,860,000	33,440,000	29,920,000
	{ dollars.....	.....	24,514,000	21,229,600	17,826,200
Woolen cloth.....	{ dollars.....	.....	19,123,300	17,714,340	14,363,776
All other articles.....	{ dollars.....	.....	309,794,670	319,163,804	307,823,726
TOTAL IMPORTS.....	dollars.....	.....	840,425,600	904,899,800	898,259,600

GERMANY—Continued.

entered for consumption.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
3,274,228	1,650,818	1,580,287	1,473,791	1,613,632	1,386,098	1,082,752	778,695
38,734,976	28,110,418	21,129,164	81,242,498	34,096,212	38,409,630	25,992,694	19,731,866
2,128,707	2,087,804	2,269,717	2,153,232	2,804,587	2,401,773	2,532,223	2,619,540
6,428,000	5,404,742	8,429,818	8,718,750	5,721,996	5,450,876	5,739,008	6,446,190
212,190,440	245,300,000	218,240,000	229,020,000	235,620,000	251,640,000	244,420,000	260,476,650
40,222,000	45,220,000	35,879,690	32,225,200	27,534,934	32,007,904	29,088,122	26,710,264
15,511	14,740	13,530	12,100	11,660	12,870	15,180	14,443
4,712,400	4,141,200	8,952,228	8,540,726	3,424,106	8,609,032	3,782,293	2,973,390
347,600,000	398,200,000	326,920,000	345,620,000	342,980,000	415,800,000	390,720,000	398,271,900
41,412,000	48,314,000	42,455,392	41,120,926	42,658,644	49,552,076	48,162,624	41,395,104
40,480,000	47,520,000	28,820,000	36,300,000	30,820,000	48,180,000	48,620,000	45,886,050
8,472,900	10,314,920	9,002,588	10,353,238	12,339,110	13,616,932	13,779,724	11,592,582
2,708,440	8,558,100	8,391,024	4,210,220	5,077,730	5,106,528	5,419,022	5,235,524
64,350	60,500	40,040	55,330	81,620	74,300	71,720	62,977
11,138,400	9,758,000	6,907,950	8,612,506	12,181,792	10,933,955	10,549,588	9,524,046
3,668,500	4,174,500	2,085,490	2,393,880	2,621,740	2,739,860	3,332,450	2,738,264
145,656,000	163,744,000	76,160,000	88,651,470	92,577,422	93,075,136	99,740,326	74,005,700
88,861,500	118,298,250	120,393,000	85,002,750	57,109,500	68,439,970	53,548,457	78,614,203
8,806,000	10,210,200	11,695,082	9,174,186	7,024,570	7,016,716	4,816,406	5,984,256
134,750	133,650	129,140	125,400	116,913	80,300	75,180	67,702
5,831,100	5,212,200	5,026,560	5,424,020	5,566,582	8,474,482	3,249,652	2,156,046
722,689	641,144	737,137	854,557	877,000	867,351	960,046	1,023,675
6,521,200	5,807,200	6,140,400	6,915,090	6,977,446	7,637,896	7,033,118	7,123,816
110,660,000	139,700,000	119,240,000	121,000,000	124,020,000	141,020,000	148,940,000	156,960,279
18,926,950	24,073,938	19,910,842	20,445,152	20,701,954	23,691,948	25,233,236	23,441,856
66,214	81,873	59,722	54,703	64,980	76,636	74,469	69,763
12,614,000	15,589,000	12,071,836	11,736,732	13,918,716	14,591,542	15,065,162	13,879,048
3,124,000	3,553,000	2,706,000	3,692,800	2,336,180	3,779,600	4,364,100	4,340,763
4,450,600	5,286,000	4,249,266	5,440,918	5,018,468	5,315,492	5,752,698	6,046,896
503,789	408,260	250,420	269,060	311,800	272,602	290,950	238,111
6,545,000	6,236,000	8,426,248	3,492,888	4,041,478	3,531,920	3,021,648	2,184,602
116,600,000	132,000,000	163,020,000	155,820,000	168,190,000	165,440,000	134,200,000	127,312,070
3,022,600	3,427,200	3,881,066	8,446,478	8,438,140	8,399,592	2,830,534	2,610,622
47,003	38,175	27,033	28,724	35,035	37,953	43,235	40,955
5,496,848	4,277,336	3,921,288	4,813,512	5,277,412	5,396,888	5,635,522	5,494,466
167,810	111,100	47,850	47,630	44,180	50,050	56,210	52,982
10,718,460	8,122,940	5,880,028	5,704,860	5,840,044	5,724,876	5,881,094	5,559,680
4,379,200	3,950,800	4,105,976	4,192,608	4,792,268	5,454,008	4,099,788	4,103,358
17,493,000	11,062,000	11,436,376	13,894,678	11,820,032	13,219,948	16,512,916	16,640,484
7,194,000	7,205,000	6,567,000	7,865,000	8,030,000	7,530,600	8,824,140	8,844,255
24,900,000	24,900,000	24,573,976	27,845,744	30,057,496	31,804,878	33,147,450	26,409,630
2,640,000	3,960,000	3,300,000	3,740,000	5,060,000	4,620,000	4,400,000	5,308,758
139,706	232,050	193,160	211,820	282,268	235,144	193,970	220,864
8,800,000	8,140,000	5,940,000	5,600,000	4,840,000	4,180,000	3,080,000	2,872,894
718,760	673,540	415,310	388,654	325,546	247,044	135,164	119,998
165,880,000	186,560,000	24,420,000	47,300,000	65,560,060	68,860,000	77,880,000	86,607,301
25,870,800	26,227,600	5,689,390	8,729,840	14,804,076	12,715,150	14,242,158	15,897,190
11,947,600	25,418,400	8,604,652	8,273,594	9,067,562	9,401,238	10,427,018	8,819,404
149,600,000	203,600,000	149,160,000	170,260,000	194,700,000	200,200,000	232,540,000	217,822,170
50,218,000	63,784,000	49,091,546	46,036,840	48,446,090	47,631,654	52,811,962	39,970,434
33,440,000	41,140,000	32,780,000	34,540,000	35,420,000	36,740,000	41,800,000	42,595,749
18,992,400	22,443,400	22,180,180	20,227,144	19,892,992	19,154,002	22,228,248	22,761,888
11,662,000	15,757,028	5,078,682	4,758,336	8,413,396	2,960,482	2,827,916	2,778,412
287,938,360	297,172,968	261,524,882	271,470,872	288,399,418	292,295,231	298,400,116	287,968,654
826,280,600	898,069,200	671,326,600	705,194,000	744,721,000	776,760,600	776,070,400	709,786,240

GERMANY—Continued.

Quantities and value

Articles.		1873.	1874.	1875.	1876.	1877.
Animals, horses excepted.	{ number .....	.....	.....	1,780,946	2,259,113	2,443,241
	{ dollars .....	.....	.....	30,095,100	33,112,940	28,890,820
Beer	{ pounds .....	.....	.....	85,140,000	126,060,000	140,800,000
	{ dollars .....	.....	.....	3,332,000	4,879,000	5,474,000
Butter	{ pounds .....	.....	.....	27,280,000	26,180,000	29,840,000
	{ dollars .....	.....	.....	6,497,400	6,806,800	5,807,200
Coal	{ tons .....	.....	.....	5,085,300	5,816,470	5,510,120
	{ dollars .....	.....	.....	.....	.....	.....
Cotton	{ pounds .....	.....	.....	88,000,000	74,530,000	87,780,000
	{ dollars .....	.....	.....	12,399,800	9,682,800	11,019,400
Cotton yarn	{ pounds .....	.....	.....	17,160,000	19,140,000	20,240,000
	{ dollars .....	.....	.....	5,545,400	5,668,200	5,878,600
Cotton manufactures	{ dollars .....	.....	.....	.....	.....	.....
Flax	{ tons .....	.....	.....	34,430	23,850	90,095
	{ dollars .....	.....	.....	6,687,800	5,593,000	10,829,000
Glass and glassware	{ tons .....	.....	.....	43,890	44,700	45,760
	{ dollars .....	.....	.....	.....	.....	.....
Grain, flour, potatoes, &c.	{ tons .....	.....	.....	1,479,500	1,245,750	2,182,581
	{ dollars .....	.....	.....	63,784,000	52,859,800	89,964,000
Hemp	{ tons .....	.....	.....	20,020	20,002	25,850
	{ dollars .....	.....	.....	3,022,600	3,022,600	3,903,200
Hops	{ pounds .....	.....	.....	23,820,000	14,300,000	17,820,000
	{ dollars .....	.....	.....	11,566,400	9,282,000	7,611,200
Horses	{ number .....	.....	.....	28,059	51,514	39,116
	{ dollars .....	.....	.....	5,831,200	9,805,600	7,449,400
Instruments, musical	{ dollars .....	.....	.....	.....	.....	.....
Iron, pig	{ tons .....	.....	.....	365,420	318,340	378,290
	{ dollars .....	.....	.....	.....	.....	.....
Iron, unwrought	{ tons .....	.....	.....	75,850	89,650	128,400
	{ dollars .....	.....	.....	.....	.....	.....
Iron, railroad bars	{ tons .....	.....	.....	134,500	152,240	247,280
	{ dollars .....	.....	.....	5,236,000	5,712,000	8,020,800
Lead, pig	{ tons .....	.....	.....	.....	80,140	35,798
	{ dollars .....	.....	.....	.....	.....	.....
Leather, dressed, dyed, &c.	{ pounds .....	.....	.....	12,880,000	13,640,000	13,420,000
	{ dollars .....	.....	.....	6,062,800	6,035,680	5,635,840
Leather goods, gloves ex- cepted	{ dollars .....	.....	.....	9,893,660	10,806,828	12,209,400
Machinery of all kinds	{ dollars .....	.....	.....	7,059,080	6,947,220	8,008,700
Oil, palm, linseed, &c.	{ dollars .....	.....	.....	.....	.....	.....
Paper	{ pounds .....	.....	.....	51,480,000	49,940,000	60,500,000
	{ dollars .....	.....	.....	.....	.....	.....
Petroleum	{ pounds .....	.....	.....	169,400,000	168,300,000	218,900,000
	{ dollars .....	.....	.....	4,760,000	7,282,800	7,830,400
Silk manufactures	{ dollars .....	.....	.....	13,282,780	13,147,120	18,710,280
	{ pounds .....	.....	.....	1,154,000	1,100,000	1,100,000
Skins, dressed	{ dollars .....	.....	.....	.....	.....	.....
Spirits of all kinds	{ pounds .....	.....	.....	45,760,000	51,040,000	80,300,000
	{ dollars .....	.....	.....	2,494,240	2,491,880	3,889,880
Sugar, raw	{ pounds .....	.....	.....	80,580,000	126,500,000	90,890,000
	{ dollars .....	.....	.....	1,780,240	7,663,600	5,712,000
Sugar, refined	{ pounds .....	.....	.....	13,890,000	19,580,000	28,180,000
	{ dollars .....	.....	.....	1,051,960	1,520,820	2,434,740
Tobacco, leaf and manu- factured	{ pounds .....	.....	.....	22,040,000	22,000,000	17,160,000
	{ dollars .....	.....	.....	6,448,800	4,593,800	3,253,460
Wool, raw	{ pounds .....	.....	.....	44,000,000	43,780,000	48,060,000
	{ dollars .....	.....	.....	.....	.....	.....
Woolen yarn	{ pounds .....	.....	.....	8,580,000	7,480,000	9,108,000
	{ dollars .....	.....	.....	6,997,200	5,616,800	6,497,400
Wool manufactures	{ dollars .....	.....	.....	.....	.....	.....
All other articles	{ dollars .....	.....	.....	890,664,740	894,821,332	398,941,580
TOTAL EXPORTS	{ dollars .....	.....	.....	594,024,200	606,852,600	637,451,200

GERMANY—Continued.

of domestic exports.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
2,274,223	1,650,816	1,580,287	1,473,790	1,603,632	1,386,098	1,082,762	1,838,687
84,201,080	25,475,520	26,325,696	26,264,966	80,248,944	32,652,648	30,928,910	23,984,448
151,800,000	143,000,000	234,300,000	267,740,000	282,700,000	293,040,000	315,260,000	354,253,977
5,902,400	5,569,200	4,565,078	6,374,592	4,695,184	5,389,510	5,116,762	5,919,782
27,940,000	26,840,000	27,500,000	25,800,000	25,740,000	27,720,000	29,920,000	31,032,067
5,474,000	5,236,000	6,043,452	4,786,180	4,855,676	4,941,832	4,826,760	5,024,180
6,407,830	6,613,200	7,960,040	8,204,130	8,394,760	9,573,300	9,698,590	9,597,267
102,960,000	127,600,000	11,194,806	12,895,010	12,629,406	14,502,532	14,688,884	19,183,038
12,257,000	15,470,000	26,180,000	39,180,000	38,500,000	45,920,000	89,820,000	42,203,545
26,520,000	20,900,000	8,403,638	5,084,894	5,192,922	5,884,312	5,846,184	3,925,034
7,140,000	5,878,600	25,520,000	22,280,000	23,540,000	18,040,000	15,840,000	13,900,796
11,824,156	7,847,098	11,824,156	7,847,098	7,683,592	6,092,800	5,375,944	4,400,620
12,979,568	14,082,936	12,979,568	14,082,936	17,406,841	17,412,060	19,123,776	18,994,374
25,630	35,090	25,630	35,090	57,860	46,420	42,020	84,350
4,422,992	5,461,624	4,422,992	5,461,624	9,022,342	7,183,574	6,447,420	5,690,580
65,560	70,400	65,560	70,400	78,340	87,120	82,610	90,182
7,016,954	7,754,516	7,016,954	7,754,516	9,067,792	9,058,042	8,427,818	7,683,826
2,394,725	753,257	2,394,725	753,257	669,984	967,840	410,023	414,004
83,300,000	46,290,762	46,290,762	22,693,180	23,362,794	25,922,960	16,392,726	12,400,780
21,560	21,010	25,960	38,060	26,510	24,090	22,000	24,620
2,908,400	2,737,000	3,861,512	4,526,998	3,150,168	3,122,184	2,894,836	3,302,012
19,900,000	17,600,000	23,980,000	19,140,000	26,620,000	16,500,000	25,800,000	27,943,893
6,402,200	5,397,400	7,247,576	5,772,690	17,556,070	8,035,856	8,473,276	5,881,456
45,428	42,526	17,961	18,867	18,725	19,197	18,034	15,770
8,639,400	8,092,000	5,994,372	5,868,820	4,988,242	5,482,568	5,206,562	4,310,368
414,870	433,070	5,150,082	6,634,964	7,922,544	6,189,166	8,613,934	8,091,468
133,100	254,100	228,580	269,720	205,590	284,850	253,000	323,426
237,920	180,840	4,079,796	4,882,056	3,336,760	4,121,446	2,901,220	2,236,248
6,902,000	5,474,000	267,080	151,690	153,510	172,700	180,290	192,160
52,150	47,804	11,218,006	13,688,784	26,098,445	26,777,802	26,927,482	19,941,762
14,800,000	14,740,000	353,220	275,770	205,580	198,820	155,950	181,691
5,658,440	5,873,840	6,908,426	7,160,230	5,756,506	4,612,202	4,039,812	4,314,464
11,787,200	12,816,500	50,075	51,199	54,653	54,366	54,266	45,338
11,896,440	9,284,880	3,455,092	3,226,136	2,686,446	2,649,524	2,526,276	2,067,018
68,220,000	65,580,000	14,520,000	15,620,000	16,730,000	16,280,000	15,840,000	15,221,997
183,920,000	44,880,000	5,264,066	9,170,378	9,896,044	10,484,896	9,944,116	10,407,264
8,164,808	1,066,240	14,812,868	17,440,878	19,435,818	26,045,210	25,772,806	23,540,818
16,731,400	15,850,800	10,261,870	10,964,938	14,566,432	15,614,228	13,463,184	11,609,298
1,110,000	1,700,000	3,844,966	3,568,556	3,522,638	2,782,984	2,547,750	2,459,690
183,920,000	44,880,000	104,720,000	107,360,000	122,100,000	130,020,000	149,160,000	135,304,773
8,164,808	1,066,240	7,643,363	8,889,484	9,095,684	10,097,110	10,507,224	11,820,824
16,731,400	15,850,800	2,360,000	1,960,000	1,760,000	1,760,000	680,000	812,075
1,110,000	1,700,000	52,360	88,080	29,274	64,978	23,086	10,670
77,880,000	72,820,000	48,812,908	46,580,646	40,448,814	38,159,018	40,648,672	35,389,618
3,760,400	2,523,400	2,420,000	3,830,000	3,740,000	3,740,000	3,960,000	3,650,690
301,300,000	212,400,000	8,807,428	9,805,976	10,200,204	9,810,596	9,629,242	7,135,716
12,165,000	13,851,000	120,340,000	185,680,000	201,740,000	143,000,000	165,220,000	197,349,127
58,524,000	61,820,000	7,065,962	10,296,926	11,422,096	7,497,060	7,750,946	6,808,418
4,823,020	5,080,820	435,160,000	554,620,000	637,560,000	960,960,000	1,154,340,000	972,968,442
13,640,000	7,700,000	19,304,656	26,368,722	29,108,354	40,262,926	33,085,326	29,601,726
2,601,240	1,937,320	116,820,000	121,660,000	130,020,000	106,760,000	259,800,000	168,179,902
48,890,000	49,500,000	7,021,238	7,905,646	8,249,794	8,390,766	10,762,836	7,751,944
11,220,000	9,240,000	2,860,000	9,240,000	11,660,000	8,140,000	14,960,000	16,100,469
7,211,499	8,807,208	891,548	1,622,208	1,898,824	1,416,358	2,126,764	2,218,398
419,967,423	416,904,980	81,460,000	26,662,000	26,700,000	27,940,000	28,180,660	22,259,916
687,121,943	680,854,600	11,935,082	11,504,920	11,828,124	10,929,224	9,364,348	6,466,766
680,854,600	680,854,600	11,000,000	10,626,000	11,000,000	10,560,000	11,440,000	12,253,077
680,854,600	680,854,600	7,770,224	7,844,562	8,098,426	7,804,934	7,646,940	8,624,644
680,854,600	680,854,600	40,723,088	44,526,468	37,263,802	42,874,748	44,054,276	37,290,394
680,854,600	680,854,600	312,068,194	329,288,601	347,601,400	356,837,598	347,406,870	321,947,963
680,854,600	680,854,600	680,854,600	768,526,000	750,830,000	778,783,800	762,767,200	680,731,400

HOLLAND.*Value of imports (including bullion and specie) from*

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	10,854,000	15,678,000	14,874,000	17,288,000	22,743,150
Norway.....	1,608,000	1,608,000	1,608,000	1,608,000	2,791,584
Sweden.....	1,206,000	1,206,000	1,206,000	1,608,000	1,850,406
Denmark.....	168,438	255,672	287,430	402,000	190,548
Germany.....	55,476,000	58,299,000	64,722,000	64,820,000	77,988,000
United Kingdom.....	96,294,000	91,656,000	97,284,000	90,450,000	82,719,540
Belgium.....	36,582,000	34,974,000	42,210,000	41,004,000	42,857,622
France.....	4,824,000	4,824,000	6,824,000	6,834,000	6,443,256
Portugal.....	402,000	1,206,000	804,000	804,000	603,804
Italy.....	1,206,000	804,000	804,000	804,000	947,514
Austria.....	130,248	24,522	56,280	91,254	63,114
British India.....	8,844,000	7,638,000	10,050,000	10,050,000	5,929,098
United States.....	12,060,000	12,060,000	8,442,000	12,060,000	15,713,778
Dutch India.....	32,964,000	30,964,000	30,964,000	29,846,090	29,815,938
China.....	106,590	804,000	200,598	218,286	34,974
Peru and Bolivia.....	2,010,000	2,412,000	2,412,000	2,412,000	2,541,444
All other.....	7,462,552	5,564,082	6,224,873	7,505,742	8,651,696
TOTAL IMPORTS.....	274,197,768	269,958,276	288,978,180	286,808,282	301,885,468

Value of domestic produce (including bullion*

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	1,206,000	3,216,000	8,442,000	6,080,000	3,025,432
Norway.....	804,000	804,000	1,206,000	1,206,000	1,638,150
Sweden.....	804,000	1,206,000	804,000	1,206,000	1,357,352
Denmark.....	804,000	804,000	1,206,000	804,000	804,494
Germany.....	95,676,000	98,284,000	95,676,000	92,058,000	91,869,058
United Kingdom.....	46,280,000	47,084,000	50,250,000	49,848,000	52,867,824
Belgium.....	27,552,000	30,954,000	32,180,000	34,170,000	36,297,384
France.....	2,814,000	2,412,000	2,814,000	2,814,000	2,819,628
Portugal.....	863,006	402,000	402,000	402,000	320,394
Italy.....	3,618,000	4,020,000	3,010,000	3,009,774	3,158,916
Austria.....	73,164	71,556	80	4,442	10,050
United States.....	1,608,000	2,010,000	1,608,000	1,947,690	1,598,352
Dutch India.....	18,490,000	14,874,000	16,482,000	17,031,936	19,183,440
China.....	30,954	.....	.....	.....	.....
Argentine Republic.....	1,608,000	804,000	402,000	224,718	229,140
All other countries.....	5,602,548	2,180,090	3,204,282	3,543,208	2,848,940
TOTAL EXPORTS.....	206,688,672	204,805,646	216,666,342	214,299,768	217,657,574

* Dutch colonial produce is included

HOLLAND.

principal countries. (Entered for consumption.)

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 23, 286, 202 1, 994, 823	<i>Dollars.</i> 23, 326, 202 2, 201, 853	<i>Dollars.</i> 18, 336, 024 1, 815, 432	<i>Dollars.</i> 18, 747, 270 1, 911, 912	<i>Dollars.</i> 30, 749, 784 1, 637, 748	<i>Dollars.</i> 36, 100, 002 1, 784, 478	<i>Dollars.</i> 37, 632, 124 1, 839, 552	<i>Dollars.</i> 30, 874, 806 1, 723, 706
1, 722, 973 133, 966	1, 744, 690 186, 176	1, 276, 752 184, 116	1, 730, 600 283, 410	1, 840, 758 166, 839	2, 395, 518 237, 964	2, 305, 068 243, 612	1, 967, 888 206, 040
81, 709, 766 87, 049, 482	88, 761, 000 88, 843, 206	98, 892, 000 85, 342, 500	116, 057, 400 98, 218, 650	125, 464, 200 110, 978, 130	129, 328, 400 108, 837, 404	121, 359, 780 127, 527, 264	120, 358, 222 108, 156, 492
46, 838, 628 6, 362, 856	44, 906, 514 4, 299, 390	42, 039, 454 6, 072, 210	44, 656, 974 8, 081, 806	49, 719, 702 7, 894, 476	56, 846, 418 6, 348, 384	58, 823, 062 6, 533, 706	64, 967, 170 7, 587, 750
391, 950 1, 167, 006	478, 556 925, 002	518, 178 945, 102	338, 082 804, 804	367, 634 916, 560	524, 610 1, 867, 202	495, 264 1, 345, 896	518, 982 1, 930, 806
28, 140 9, 243, 588	822, 492 12, 015, 378	394, 012 9, 924, 978	51, 054 13, 807, 494	16, 848 8, 691, 240	11, 256 13, 168, 892	154, 770 11, 116, 254	287, 028 14, 980, 168
20, 901, 990 27, 699, 408	21, 820, 158 22, 509, 588	32, 687, 022 22, 567, 870	24, 422, 706 21, 814, 844	17, 109, 168 21, 847, 406	24, 505, 920 32, 377, 462	26, 408, 792 30, 836, 206	22, 354, 818 39, 836, 282
14, 472 4, 102, 008	14, 472 3, 109, 168	4, 422 1, 565, 780	1, 206 2, 734, 806	402 4, 955, 052	1, 206 3, 632, 678	1, 480, 164 4, 081, 608	..... 2, 566, 066
10, 882, 492	15, 129, 572	15, 473, 088	16, 544, 720	16, 881, 418	18, 635, 514	21, 911, 382	20, 668, 272
325, 529, 148	341, 158, 506	337, 569, 048	369, 707, 742	398, 827, 416	431, 094, 348	453, 645, 342	438, 549, 086

and specie) exported to principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 3, 854, 474 1, 200, 620	<i>Dollars.</i> 3, 039, 924 859, 074	<i>Dollars.</i> 3, 702, 420 1, 188, 714	<i>Dollars.</i> 2, 934, 198 1, 567, 498	<i>Dollars.</i> 3, 749, 454 1, 251, 024	<i>Dollars.</i> 2, 148, 288 892, 188	<i>Dollars.</i> 1, 768, 800 1, 199, 168	<i>Dollars.</i> 1, 921, 560 1, 259, 064
1, 041, 583 1, 805, 294	1, 041, 180 785, 910	2, 493, 482 1, 369, 212	1, 244, 994 2, 224, 266	1, 263, 486 1, 739, 032	1, 594, 734 1, 851, 210	1, 156, 554 2, 532, 298	1, 984, 524 3, 138, 012
97, 865, 292 52, 679, 688	108, 156, 492 51, 878, 502	108, 759, 492 58, 938, 024	121, 690, 224 64, 243, 620	138, 512, 316 62, 584, 566	133, 140, 792 53, 155, 254	162, 943, 866 74, 975, 512	156, 829, 446 92, 104, 648
36, 372, 558 2, 891, 184	87, 889, 304 4, 148, 238	40, 478, 596 4, 218, 990	43, 978, 398 3, 655, 275	47, 216, 910 2, 989, 674	46, 045, 482 1, 819, 452	52, 171, 258 1, 998, 342	51, 387, 060 3, 608, 352
491, 244 2, 747, 670	802, 794 1, 652, 250	1, 050, 270 4, 357, 984	351, 750 4, 461, 390	264, 516 5, 667, 396	278, 980 4, 782, 746	1, 087, 812 3, 230, 070	643, 602 5, 859, 552
4, 422 1, 390, 920	1, 607 3, 686, 240	4, 824 6, 305, 370	..... 6, 576, 720	..... 15, 404, 238	10, 050 7, 711, 164	201, 300 9, 018, 870	537, 836 10, 612, 396
21, 189, 822 14, 472	16, 676, 970 100, 902	18, 830, 464 11, 658	16, 920, 984	15, 861, 714	14, 597, 474 402	17, 422, 689	18, 189, 294 4, 422
106, 530 3, 431, 020	56, 682 3, 071, 250	60, 702 2, 375, 514	425, 316 6, 900, 131	298, 686 5, 817, 342	77, 586 7, 076, 666	205, 020 8, 183, 314	804 10, 051, 298
226, 696, 192	233, 827, 320	253, 154, 676	277, 584, 770	302, 620, 374	275, 132, 418	338, 174, 862	358, 196, 473

under the head of "domestic produce."

HOLLAND—Continued.

Quantities and value of imports entered

Articles.	1873.	1874.	1875.	1876.	1877.
Ashes..... { tons 19,450	19,450	19,825	23,482	21,739	23,005
{ dollars..... 1,847,984	1,847,984	1,944,484	2,226,678	2,065,878	2,186,076
Coal..... { tons 2,325,000	2,325,000	2,036,000	2,352,000	2,029,000	2,684,000
{ dollars..... 8,369,640	8,369,640	7,539,814	8,590,770	9,607,800	9,748,902
Coffee..... { pounds 230,762,400	230,762,400	184,707,600	242,081,400	186,018,800	243,383,800
{ dollars..... 18,553,506	14,850,282	19,463,232	14,953,596	19,568,154	
Copper..... { tons 6,807	6,807	7,084	7,648	6,090	6,724
{ dollars..... 2,487,576	2,487,576	2,588,478	2,427,678	2,225,874	2,456,426
Cotton..... { pounds 102,990,800	102,990,800	99,182,600	97,420,400	108,917,000	86,545,800
{ dollars..... 11,941,410	10,874,100	10,680,738	11,941,410	9,488,808	
Cotton manufactures..... { dollars..... 3,488,154	4,810,332	4,845,306	4,532,550	4,237,080	
Cotton yarn..... { dollars..... 11,071,482	11,496,396	10,711,290	11,315,094	8,778,474	
Drugs, Peruvian bark..... { dollars..... 12,620,790	13,060,656	13,148,214	11,108,642	8,095,074	
Engines, steam..... { dollars..... 1,888,508	1,739,856	1,524,884	1,523,178	2,553,916	
Dye-stuffs..... { dollars..... 5,118,666	3,938,394	4,550,238	5,615,940	4,079,898	
Flour and meal..... { pounds 41,100,400	34,993,200	29,871,600	19,958,400	53,789,400	
{ dollars..... 2,289,390	1,918,746	1,637,748	1,094,244	2,945,856	
Grain:					
Wheat..... { bushels 4,670,800	5,483,016	4,904,064	5,959,800	9,070,548	
{ dollars..... 6,432,804	7,765,836	6,945,756	8,442,402	12,819,930	
Barley..... { bushels 3,422,928	3,888,222	3,538,986	4,512,420	4,222,944	
{ dollars..... 2,586,066	2,935,052	2,673,300	3,400,802	3,191,076	
Rye..... { bushels 5,108,400	7,186,654	6,862,284	7,411,638	11,439,978	
{ dollars..... 4,823,196	6,788,574	6,481,044	6,960,278	10,802,142	
Guano..... { tons 22,492	23,989	18,980	24,289	30,855	
{ dollars..... 1,314,942	1,398,558	1,106,706	1,420,266	1,891,176	
Hair of all sorts..... { pounds 4,105,000	3,548,600	3,530,400	2,713,600	3,236,200	
{ dollars..... 5,252,532	4,537,776	3,912,264	4,750,836	4,100,600	
Hides, raw..... { dollars..... 5,416,548	5,137,560	5,562,072	4,671,642	4,317,822	
Indigo..... { pounds 4,140,400	3,218,600	2,948,000	3,335,200	3,062,400	
{ dollars..... 4,540,188	3,529,560	3,231,276	3,776,388	3,356,298	
Iron:					
Pig..... { dollars 14,741,742	8,564,614	9,806,790	10,017,438	10,018,644	
Bars, hoops, and plates..... { dollars 7,798,800	11,842,518	13,036,458	9,334,842	10,722,144	
Wares, including nails, wire, &c..... { dollars 3,048,366	2,408,784	3,633,168	2,917,314	5,281,476	
Oil, palm..... { pounds 34,062,600	35,967,800	30,530,400	37,358,200	36,368,600	
{ dollars..... 8,112,284	3,285,948	2,780,232	3,412,960	3,322,530	
Petroleum..... { pounds 60,838,800	62,849,600	73,885,400	75,411,200	89,735,400	
{ dollars..... 2,779,026	2,871,064	3,372,378	3,426,648	4,099,194	
Rice..... { tons 83,704	81,639	92,786	84,719	64,639	
{ dollars..... 9,196,654	8,950,530	10,189,092	9,290,622	7,119,822	
Salt peter, unrefined..... { tons 14,811	18,497	21,702	19,791	12,463	
{ dollars..... 1,369,006	2,022,462	2,379,438	2,169,906	1,366,398	
Seeds of all sorts..... { dollars..... 5,528,706	5,792,016	6,261,954	5,847,492	6,091,104	
Silk manufactures..... { dollars..... 806,010	715,962	695,460	626,316	548,730	
Spelter or zinc..... { dollars..... 1,089,606	1,443,984	1,011,432	1,349,514	2,109,696	
Sugar, raw and clayed..... { tons 119,545	113,481	101,437	100,174	102,301	
{ dollars..... 15,226,956	14,515,014	13,974,550	12,812,946	13,045,502	
Tallow and lard..... { pounds 39,890,400	30,905,000	32,619,400	49,293,200	53,433,400	
{ dollars..... 3,644,432	3,371,976	2,960,428	4,533,606	5,064,798	
Tea..... { pounds 4,072,200	4,356,000	4,316,400	4,327,400	4,701,400	
{ dollars..... 1,860,858	1,990,302	1,971,408	1,977,036	2,147,484	
Timber..... { dollars..... 4,434,462	5,021,784	5,665,386	8,200,800	9,159,570	
{ pounds 23,568,600	16,673,800	13,202,200	16,847,600	18,119,200	
Tin, unwrought..... { dollars..... 4,308,636	3,053,094	2,412,402	8,076,506	3,810,672	
{ pounds 29,438,200	26,292,000	27,055,600	33,248,600	29,343,600	
Tobacco, leaf..... { pounds 2,680,850	2,594,860	2,471,496	3,037,914	2,679,732	
{ gallons 2,894,850	2,365,812	3,251,725	3,633,625	3,307,425	
Wine..... { dollars..... 1,773,222	1,602,774	1,992,410	2,060,280	2,044,170	
Wool..... { dollars..... 4,478,682	3,862,416	4,318,284	4,192,860	3,861,926	
Woolen manufactures..... { dollars..... 4,676,466	4,700,988	4,684,506	4,552,650	4,617,372	
Woolen yarn..... { dollars..... 6,071,406	7,009,270	5,828,186	5,824,980	5,033,442	
All other articles..... { dollars..... 55,998,806	56,983,762	66,964,660	69,456,856	78,201,864	
TOTAL IMPORTS..... { dollars..... 266,735,844	261,867,222	276,958,704	279,788,784	295,870,794	

HOLLAND—Continued.

for consumption. (Merchandise only.)

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
23, 274	21, 795	23, 998	22, 484	22, 759	26, 903	31, 445	45, 694
2, 211, 402	2, 071, 104	2, 280, 144	2, 136, 680	2, 162, 358	2, 563, 878	2, 988, 086	3, 279, 516
2, 945, 000	3, 038, 000	3, 389, 000	3, 420, 000	3, 487, 000	3, 775, 000	3, 744, 000	4, 850, 000
10, 394, 112	11, 102, 436	12, 384, 012	12, 487, 376	12, 635, 262	13, 794, 238	13, 682, 472	14, 072, 010
205, 823, 000	211, 087, 000	212, 482, 000	207, 006, 800	211, 862, 000	238, 687, 800	229, 591, 800	225, 968, 245
16, 532, 260	16, 968, 822	17, 083, 794	16, 643, 202	10, 993, 544	22, 808, 274	18, 442, 956	18, 128, 190
6, 296	6, 425	5, 613	5, 950	5, 058	5, 798	6, 476	8, 942
2, 801, 048	2, 848, 082	2, 051, 406	2, 174, 418	1, 848, 396	2, 119, 942	2, 866, 574	3, 262, 230
95, 213, 200	92, 393, 400	101, 967, 800	96, 765, 800	90, 253, 600	102, 685, 000	94, 963, 000	87, 673, 865
10, 439, 538	10, 129, 596	11, 179, 218	9, 512, 526	9, 896, 446	11, 253, 010	10, 411, 898	9, 492, 024
4, 899, 488	8, 949, 248	4, 137, 884	4, 010, 754	3, 918, 294	3, 616, 794	3, 969, 348	3, 852, 680
9, 978, 546	10, 539, 842	8, 939, 578	9, 253, 236	9, 623, 478	12, 594, 660	12, 705, 612	12, 652, 372
13, 193, 238	8, 244, 618	11, 895, 984	20, 216, 580	26, 429, 088	16, 547, 928	37, 570, 920	40, 852, 760
3, 023, 050	3, 498, 606	3, 352, 278	3, 402, 980	4, 267, 100	4, 908, 618	4, 272, 054	2, 206, 852
4, 467, 426	5, 836, 484	4, 791, 686	5, 372, 730	5, 297, 556	7, 197, 810	4, 731, 540	4, 302, 204
77, 631, 400	115, 892, 200	96, 474, 400	66, 968, 000	69, 478, 200	126, 319, 600	122, 443, 200	116, 232, 165
4, 265, 572	6, 826, 470	6, 288, 310	4, 780, 644	3, 808, 548	6, 924, 852	6, 712, 194	6, 857, 228
11, 258, 808	13, 619, 562	16, 192, 410	14, 715, 080	16, 522, 836	20, 530, 992	21, 154, 452	22, 818, 296
15, 942, 916	19, 295, 982	22, 894, 654	20, 843, 700	23, 404, 440	29, 082, 288	30, 867, 884	27, 592, 074
5, 724, 480	5, 804, 584	4, 712, 700	5, 043, 126	5, 514, 234	6, 837, 786	6, 188, 594	6, 011, 922
4, 825, 520	4, 005, 930	3, 557, 298	4, 809, 754	4, 163, 780	4, 409, 538	4, 636, 668	4, 973, 142
13, 002, 534	15, 697, 948	9, 359, 724	7, 892, 478	11, 045, 932	13, 945, 932	12, 469, 552	13, 716, 054
12, 846, 910	14, 728, 678	8, 837, 568	7, 451, 874	10, 431, 498	13, 169, 922	11, 797, 092	12, 962, 038
43, 485	25, 727	23, 454	18, 368	26, 115	10, 318	17, 980	21, 014
2, 542, 650	1, 504, 284	1, 400, 568	1, 074, 144	1, 468, 506	603, 402	1, 051, 230	1, 226, 100
2, 948, 000	2, 908, 400	2, 978, 800	3, 558, 600	2, 873, 200	2, 767, 600	1, 628, 000	2, 265, 935
3, 771, 564	8, 719, 706	8, 810, 156	8, 272, 280	3, 673, 878	5, 060, 012	2, 063, 266	2, 890, 780
4, 910, 058	4, 784, 202	4, 185, 524	4, 713, 450	8, 937, 992	4, 674, 250	5, 274, 240	5, 130, 324
2, 267, 200	2, 415, 600	2, 088, 008	2, 609, 200	2, 347, 400	2, 980, 400	3, 667, 400	3, 988, 845
2, 596, 902	2, 648, 778	2, 267, 682	2, 860, 632	2, 574, 006	3, 212, 382	4, 021, 206	4, 508, 532
10, 622, 046	8, 943, 696	7, 884, 828	10, 278, 336	13, 216, 152	11, 562, 876	8, 704, 506	7, 890, 564
9, 046, 924	13, 050, 126	19, 267, 458	23, 385, 201	25, 023, 696	30, 985, 758	18, 859, 428	15, 877, 304
7, 928, 646	7, 907, 840	9, 857, 844	14, 844, 252	18, 128, 994	13, 197, 258	13, 122, 084	12, 857, 970
31, 534, 800	40, 169, 800	40, 946, 400	40, 990, 400	35, 413, 400	31, 969, 200	29, 053, 200	30, 133, 536
2, 681, 134	3, 670, 260	3, 741, 012	3, 745, 032	3, 235, 296	2, 911, 696	2, 654, 406	2, 746, 806
73, 491, 200	97, 528, 200	108, 484, 200	119, 572, 200	131, 582, 000	149, 138, 000	164, 524, 500	170, 287, 740
4, 270, 848	4, 455, 366	4, 965, 856	5, 462, 376	6, 011, 106	6, 813, 096	7, 516, 998	7, 761, 414
90, 673	64, 874	87, 415	125, 881	75, 439	104, 742	131, 685	121, 203
9, 941, 058	11, 986, 588	9, 463, 080	13, 801, 062	8, 270, 748	11, 482, 826	14, 984, 560	13, 257, 960
18, 341	21, 568	19, 846	25, 740	36, 641	33, 558	37, 716	26, 148
2, 010, 804	2, 364, 584	2, 176, 626	2, 822, 040	3, 989, 046	3, 679, 104	4, 134, 972	2, 960, 280
7, 241, 226	6, 829, 176	6, 378, 082	6, 131, 706	7, 002, 438	8, 007, 840	8, 625, 312	9, 738, 852
549, 936	451, 044	426, 522	356, 574	358, 182	335, 268	240, 798	185, 322
2, 253, 210	2, 394, 714	2, 498, 058	4, 060, 020	3, 574, 504	3, 487, 502	3, 370, 368	3, 880, 908
105, 026	114, 356	104, 507	108, 600	104, 968	127, 516	135, 945	122, 372
13, 437, 654	14, 637, 172	13, 367, 304	13, 890, 708	13, 425, 594	16, 316, 348	17, 888, 570	15, 616, 896
50, 050, 000	82, 420, 000	119, 761, 400	110, 129, 800	94, 936, 600	126, 997, 200	123, 622, 400	122, 829, 525
5, 396, 445	7, 530, 284	10, 941, 636	10, 062, 060	8, 673, 582	11, 602, 928	11, 294, 592	11, 196, 504
4, 224, 000	4, 293, 800	4, 540, 800	4, 798, 200	4, 808, 600	6, 122, 600	3, 894, 000	4, 780, 440
1, 938, 444	1, 964, 172	2, 123, 918	2, 191, 704	2, 228, 864	2, 797, 518	1, 778, 850	2, 178, 840
8, 648, 000	8, 487, 426	8, 433, 406	9, 421, 272	9, 320, 772	10, 565, 364	10, 647, 774	8, 999, 172
17, 450, 400	26, 232, 800	14, 214, 200	18, 378, 800	15, 606, 900	20, 600, 800	20, 416, 000	20, 413, 800
3, 188, 964	4, 793, 448	2, 507, 322	3, 858, 308	2, 851, 788	3, 764, 328	3, 730, 560	3, 721, 716
32, 093, 900	30, 742, 800	31, 141, 000	29, 321, 000	29, 649, 400	34, 661, 000	46, 580, 000	29, 260, 850
2, 923, 188	2, 772, 579	2, 844, 954	2, 678, 928	2, 709, 078	3, 166, 554	4, 265, 572	2, 668, 579
3, 435, 337	3, 375, 623	3, 850, 550	3, 217, 975	3, 518, 812	3, 179, 137	2, 644, 481	2, 714, 148
2, 104, 470	2, 074, 320	2, 062, 612	1, 971, 006	2, 155, 524	1, 947, 690	1, 851, 710	1, 764, 780
3, 262, 632	3, 566, 544	3, 506, 460	4, 442, 100	4, 778, 976	6, 068, 814	8, 665, 110	7, 674, 582
4, 863, 710	4, 034, 674	4, 134, 168	4, 025, 628	3, 967, 096	3, 146, 280	3, 145, 484	2, 815, 538
5, 562, 624	6, 250, 698	4, 345, 620	4, 824, 000	5, 396, 046	4, 785, 008	5, 151, 228	5, 118, 696
82, 801, 049	80, 349, 029	81, 474, 620	86, 070, 928	99, 889, 292	114, 445, 704	120, 111, 654	116, 449, 376
818, 890, 966	828, 732, 284	832, 840, 322	806, 062, 406	806, 752, 106	406, 714, 656	447, 280, 476	431, 003, 496

HOLLAND—Continued.

Quantities and value of

Articles.		1873.	1874.	1875.	1876.	1877.
Animals (horses excepted).....	number..	484, 345	561, 520	662, 700	584, 242	588, 295
	dollars..	6, 998, 418	7, 427, 352	7, 820, 910	7, 186, 248	8, 070, 200
Bran.....	pounds..	31, 237, 200	30, 511, 980	47, 643, 200	46, 941, 400	31, 177, 000
	dollars..	1, 691, 616	1, 672, 722	2, 611, 794	2, 573, 262	1, 874, 722
Butter.....	pounds..	37, 891, 400	40, 733, 060	40, 915, 060	50, 421, 600	50, 844, 200
	dollars..	5, 439, 060	5, 954, 424	5, 900, 936	7, 371, 072	7, 432, 378
Candles.....	dollars..	3, 608, 352	3, 325, 120	3, 757, 494	3, 635, 502	4, 511, 244
	pounds..	54, 698, 600	61, 613, 300	67, 254, 000	50, 146, 800	67, 383, 400
Cheese.....	dollars..	3, 498, 204	3, 940, 414	4, 301, 400	4, 192, 056	4, 808, 636
Coffee.....	pounds..	151, 366, 800	182, 411, 400	148, 715, 600	162, 782, 400	168, 009, 690
	dollars..	12, 169, 746	10, 645, 764	11, 956, 686	13, 087, 914	13, 508, 094
	pounds..	12, 416, 800	13, 538, 800	12, 509, 260	11, 587, 400	11, 154, 000
Copper, raw.....	dollars..	2, 268, 888	2, 473, 908	2, 285, 772	2, 117, 334	2, 041, 758
	pounds..	91, 575, 000	86, 510, 000	85, 375, 400	87, 377, 400	75, 163, 080
Cotton.....	dollars..	10, 039, 950	9, 484, 788	9, 380, 168	9, 579, 080	8, 240, 598
Cotton manufactures.....	dollars..	6, 607, 674	6, 882, 842	6, 905, 154	6, 569, 062	6, 068, 994
Cotton yarn.....	dollars..	7, 018, 116	6, 580, 590	5, 638, 854	5, 607, 900	5, 119, 872
Drugs:						
Peruvian bark.....	pounds..	11, 413, 584	12, 416, 172	11, 708, 250	9, 133, 440	9, 909, 978
	dollars..	1, 679, 350	2, 753, 700	2, 822, 844	2, 288, 184	2, 181, 062
Dyes.....	dollars..	2, 943, 042	3, 390, 046	6, 042, 060	3, 460, 260	4, 207, 734
	pounds..	44, 458, 200	48, 006, 200	46, 290, 800	23, 909, 000	40, 447, 000
Flax.....	dollars..	5, 753, 424	6, 472, 200	6, 536, 520	4, 542, 000	5, 409, 714
	dollars..	3, 927, 942	3, 773, 172	4, 809, 528	6, 299, 742	9, 036, 688
Guano.....	dollars..	596, 970	578, 076	752, 946	957, 564	787, 518
Hair.....	pounds..	2, 477, 200	2, 508, 600	2, 127, 400	2, 714, 800	3, 220, 800
	dollars..	3, 167, 700	3, 202, 382	2, 720, 334	3, 472, 074	4, 118, 490
Hides.....	dollars..	3, 468, 054	4, 152, 258	4, 050, 552	3, 898, 596	3, 416, 598
	number..	10, 679	9, 013	12, 172	16, 704	9, 070
Horses.....	dollars..	802, 974	986, 214	947, 112	1, 082, 988	709, 128
	pounds..	2, 659, 800	3, 740, 000	2, 391, 400	3, 141, 600	3, 068, 200
Indigo.....	dollars..	2, 916, 912	4, 099, 194	2, 621, 040	4, 444, 386	2, 848, 974
Iron:						
Pig.....	dollars..	8, 105, 928	7, 774, 494	9, 211, 830	9, 280, 070	8, 489, 438
Bar, rolls, &c.....	dollars..	3, 679, 104	5, 818, 960	8, 930, 832	4, 414, 764	8, 390, 946
Wire, nails, &c.....	dollars..	2, 310, 294	2, 452, 200	2, 426, 472	2, 626, 972	4, 140, 600
Madder.....	dollars..	1, 847, 190	2, 728, 384	2, 498, 430	1, 324, 992	1, 046, 808
Oil:						
Seed.....	pounds..	31, 020, 000	36, 988, 800	43, 412, 600	43, 641, 400	47, 876, 400
	dollars..	1, 842, 366	2, 185, 322	2, 578, 026	2, 591, 694	2, 845, 356
Palm.....	pounds..	10, 641, 400	8, 384, 600	7, 627, 400	5, 893, 800	3, 817, 000
	dollars..	972, 438	766, 212	699, 078	538, 630	348, 936
Rice.....	pounds..	45, 830, 400	50, 850, 800	53, 176, 200	65, 098, 000	53, 204, 200
	dollars..	2, 512, 096	2, 787, 468	2, 914, 902	3, 568, 554	2, 919, 728
Salt peter.....	pounds..	29, 166, 400	31, 449, 000	39, 041, 200	30, 082, 800	26, 630, 800
	dollars..	1, 649, 004	1, 723, 776	2, 140, 248	1, 649, 004	1, 480, 566
Silk, raw.....	dollars..	288, 254	717, 168	645, 612	395, 166	43, 818
Spelter or zinc.....	dollars..	1, 554, 956	1, 151, 780	730, 434	970, 028	1, 355, 946
Spirits.....	gallons..	6, 112, 716	6, 453, 894	6, 411, 370	7, 181, 586	6, 024, 691
	dollars..	1, 861, 280	1, 964, 574	1, 952, 112	1, 831, 110	1, 834, 728
Sugar, refined.....	pounds..	188, 098, 600	179, 847, 800	170, 931, 200	162, 949, 000	138, 074, 800
	dollars..	13, 795, 988	13, 144, 998	12, 392, 856	11, 770, 158	10, 019, 046
Tallow.....	pounds..	16, 815, 200	14, 042, 600	16, 378, 600	12, 188, 000	13, 822, 600
	dollars..	1, 490, 616	1, 288, 184	857, 064	1, 116, 148	1, 263, 084
Tin, unwrought.....	pounds..	14, 924, 800	16, 385, 200	17, 219, 600	15, 914, 800	15, 615, 000
	dollars..	2, 738, 424	2, 727, 168	2, 985, 252	3, 146, 454	2, 908, 068
Tobacco, leaf.....	pounds..	7, 900, 200	7, 761, 600	8, 009, 754	7, 845, 200	6, 988, 000
	dollars..	721, 590	709, 128	650, 034	717, 166	605, 814
Vegetables.....	pounds..	65, 850, 400	82, 526, 400	100, 386, 000	96, 564, 600	100, 434, 400
	dollars..	3, 609, 558	4, 582, 108	5, 502, 978	5, 293, 536	5, 696, 340
	pounds..	14, 148, 200	15, 037, 000	16, 544, 000	21, 711, 800	17, 052, 000
Wool.....	dollars..	3, 102, 636	3, 296, 802	3, 627, 648	4, 183, 212	3, 032, 286
Woolen manufactures.....	dollars..	1, 623, 276	1, 810, 206	1, 817, 040	1, 715, 736	1, 726, 992
Woolen yarn.....	dollars..	2, 734, 404	2, 696, 272	3, 809, 754	4, 249, 944	2, 287, 722
	pounds..	18, 046, 600	15, 360, 400	16, 585, 800	16, 123, 800	15, 962, 200
Yeast.....	dollars..	1, 619, 004	1, 403, 582	1, 515, 540	1, 472, 928	1, 457, 250
All other articles.....	dollars..	46, 298, 792	40, 502, 539	44, 022, 518	49, 611, 014	62, 816, 268
TOTAL EXPORTS.....	dollars..	200, 597, 196	203, 807, 970	215, 519, 034	212, 787, 996	212, 963, 218

HOLLAND—Continued.

domestic produce exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
553, 279	567, 955	544, 880	487, 417	563, 471	440, 775	436, 080	491, 211
5, 374, 338	5, 310, 822	5, 265, 896	5, 025, 402	5, 910, 450	4, 175, 358	4, 560, 288	4, 696, 566
19, 274, 200	35, 664, 200	31, 993, 000	36, 999, 600	38, 211, 800	30, 903, 400	46, 241, 800	63, 484, 155
1, 059, 456	1, 954, 926	1, 760, 308	2, 028, 090	2, 094, 018	1, 694, 028	2, 896, 812	3, 472, 074
57, 573, 400	80, 102, 208	79, 814, 400	90, 472, 800	106, 350, 200	83, 010, 400	126, 339, 400	140, 030, 730
8, 417, 076	11, 722, 722	11, 594, 082	13, 225, 398	15, 546, 546	12, 134, 370	18, 468, 282	20, 403, 610
3, 508, 554	3, 980, 634	4, 993, 644	4, 808, 636	8, 191, 076	2, 563, 554	3, 939, 600	2, 978, 820
63, 213, 200	58, 840, 200	61, 722, 600	55, 988, 600	57, 193, 400	62, 882, 600	64, 669, 000	75, 922, 500
4, 172, 358	3, 571, 770	3, 947, 640	3, 580, 614	3, 667, 798	3, 818, 108	4, 135, 776	4, 844, 502
150, 420, 000	158, 988, 000	146, 498, 800	136, 184, 400	141, 680, 000	146, 777, 400	145, 851, 200	155, 694, 480
12, 093, 768	12, 879, 982	11, 779, 002	10, 949, 274	11, 891, 876	11, 800, 710	11, 728, 340	12, 489, 738
10, 698, 000	10, 245, 400	9, 941, 800	10, 564, 400	11, 596, 200	7, 453, 600	9, 675, 600	14, 737, 500
1, 934, 976	1, 892, 114	1, 816, 038	1, 930, 404	2, 118, 942	1, 801, 978	1, 731, 816	2, 633, 100
68, 964, 000	72, 867, 400	74, 423, 800	64, 405, 000	70, 028, 000	63, 575, 600	65, 267, 400	49, 947, 660
7, 514, 204	7, 967, 740	7, 918, 596	7, 061, 130	7, 677, 396	6, 968, 688	7, 155, 600	5, 483, 582
6, 110, 400	7, 846, 038	6, 616, 116	6, 718, 026	6, 353, 610	6, 812, 606	6, 990, 000	6, 399, 840
0, 234, 216	0, 318, 234	4, 652, 748	5, 598, 830	5, 771, 142	7, 787, 142	7, 405, 542	8, 539, 686
1, 322, 200	1, 060, 400	1, 573, 000	2, 574, 000	3, 198, 800	1, 601, 600	4, 226, 300	5, 272, 175
9, 064, 080	7, 746, 138	12, 489, 160	18, 819, 630	23, 881, 528	11, 705, 436	30, 883, 050	38, 452, 905
2, 274, 516	2, 207, 832	1, 899, 852	2, 781, 992	2, 476, 820	1, 757, 544	2, 681, 742	2, 409, 990
4, 494, 360	4, 194, 488	4, 224, 618	4, 297, 478	5, 589, 560	3, 276, 300	3, 902, 618	4, 075, 074
82, 436, 800	35, 765, 400	83, 932, 800	36, 823, 600	35, 015, 200	81, 636, 000	29, 623, 000	36, 393, 535
4, 349, 238	4, 735, 962	4, 407, 528	4, 805, 106	4, 615, 764	4, 045, 728	3, 800, 106	4, 947, 620
16, 502, 502	24, 520, 892	21, 257, 760	31, 610, 314	25, 826, 490	29, 306, 202	34, 674, 024	27, 641, 118
872, 340	1, 034, 340	1, 703, 676	1, 346, 298	1, 545, 690	851, 034	815, 356	826, 110
2, 184, 000	2, 178, 000	2, 611, 400	2, 437, 400	2, 499, 200	1, 656, 600	1, 166, 000	2, 123, 415
2, 728, 776	2, 785, 458	3, 841, 022	3, 142, 434	3, 197, 508	2, 119, 344	1, 491, 420	2, 711, 088
3, 876, 888	4, 241, 904	4, 056, 583	3, 980, 604	4, 029, 246	4, 206, 930	4, 489, 286	4, 689, 702
9, 319	9, 892	9, 994	11, 473	11, 589	10, 570	11, 322	9, 519
723, 610	771, 438	755, 358	898, 470	901, 284	800, 784	855, 456	736, 866
2, 061, 400	1, 969, 000	1, 633, 400	2, 373, 800	2, 255, 000	2, 845, 200	2, 604, 800	2, 319, 955
2, 259, 642	2, 158, 338	1, 681, 968	2, 603, 734	2, 416, 430	2, 531, 996	2, 856, 210	3, 742, 218
8, 076, 181	6, 563, 856	7, 302, 330	9, 500, 868	12, 503, 004	9, 987, 090	8, 006, 634	6, 727, 470
6, 063, 878	6, 421, 930	10, 924, 958	15, 411, 072	13, 142, 184	10, 946, 460	10, 255, 024	8, 314, 968
8, 289, 212	8, 289, 212	9, 141, 078	10, 926, 762	12, 644, 106	8, 284, 216	9, 719, 958	10, 281, 150
725, 208	701, 892	398, 382	437, 376	418, 080	347, 328	419, 286	428, 532
35, 158, 200	41, 131, 400	40, 675, 800	47, 810, 400	40, 649, 400	50, 236, 000	57, 409, 200	49, 678, 650
2, 087, 968	2, 454, 612	2, 409, 186	2, 835, 306	2, 414, 010	2, 984, 046	3, 422, 628	2, 947, 464
5, 594, 600	7, 420, 600	6, 971, 800	13, 761, 000	10, 837, 200	5, 130, 400	4, 329, 600	6, 088, 005
511, 344	677, 772	636, 768	1, 257, 054	990, 120	468, 732	365, 568	554, 709
70, 475, 800	68, 013, 000	74, 740, 600	78, 625, 800	91, 227, 400	89, 683, 000	81, 377, 800	91, 900, 305
3, 864, 024	3, 728, 550	4, 097, 184	4, 316, 244	5, 000, 880	4, 910, 028	4, 454, 964	5, 031, 432
22, 696, 400	48, 981, 600	39, 006, 000	51, 689, 000	66, 388, 800	61, 127, 000	64, 127, 000	50, 629, 185
1, 791, 714	2, 411, 196	2, 138, 238	2, 833, 296	3, 624, 432	3, 845, 042	3, 515, 490	2, 768, 574
54, 672	30, 150	15, 276	10, 854	6, 834	643	52, 262	91, 656
1, 044, 798	1, 111, 530	928, 620	1, 912, 716	1, 125, 002	1, 296, 852	1, 572, 222	2, 149, 494
6, 013, 334	6, 132, 721	7, 072, 211	6, 132, 454	6, 733, 339	7, 032, 135	7, 221, 442	6, 144, 340
1, 832, 316	1, 864, 074	2, 152, 710	1, 866, 888	2, 040, 798	2, 141, 052	2, 196, 136	1, 870, 506
144, 155, 000	152, 875, 800	146, 300, 000	138, 019, 200	138, 237, 000	158, 677, 200	202, 627, 200	178, 175, 025
10, 400, 142	11, 015, 754	10, 681, 444	9, 966, 786	9, 962, 768	11, 505, 642	14, 703, 954	12, 960, 982
18, 244, 000	15, 038, 800	20, 823, 000	22, 882, 200	19, 868, 000	17, 672, 600	16, 680, 700	16, 974, 090
1, 067, 094	1, 372, 428	1, 902, 666	2, 090, 400	1, 817, 040	1, 614, 834	1, 524, 384	1, 547, 298
16, 557, 200	20, 766, 000	18, 583, 400	18, 618, 800	16, 460, 400	18, 068, 600	18, 079, 600	19, 591, 425
2, 853, 896	3, 025, 453	3, 673, 476	3, 895, 694	2, 494, 008	2, 987, 664	3, 301, 626	3, 571, 770
8, 207, 600	7, 580, 000	5, 164, 400	5, 266, 800	5, 973, 000	4, 109, 800	2, 921, 609	5, 687, 698
755, 358	783, 900	512, 952	481, 194	545, 316	383, 508	367, 428	518, 580
110, 806, 800	66, 635, 000	71, 717, 800	101, 413, 400	66, 118, 800	71, 156, 800	128, 149, 400	142, 087, 755
5, 719, 254	3, 716, 088	4, 109, 244	5, 857, 542	3, 798, 096	4, 032, 060	6, 681, 838	8, 030, 698
16, 755, 200	10, 535, 000	20, 325, 800	19, 604, 200	18, 616, 400	27, 467, 000	37, 846, 600	31, 365, 010
2, 838, 120	2, 952, 880	3, 668, 250	4, 099, 194	3, 808, 950	5, 917, 038	8, 238, 990	6, 762, 444
1, 841, 562	1, 509, 108	2, 864, 664	2, 264, 864	2, 251, 602	2, 005, 626	1, 977, 036	1, 516, 746
2, 606, 176	2, 860, 632	2, 440, 170	2, 669, 280	3, 276, 702	3, 721, 716	2, 864, 652	3, 517, 098
16, 574, 800	17, 877, 200	16, 403, 200	15, 021, 600	12, 898, 600	9, 020, 000	13, 658, 200	17, 135, 055
1, 490, 214	1, 633, 326	1, 498, 656	1, 872, 428	1, 077, 762	824, 100	1, 247, 406	1, 661, 770
55, 765, 489	51, 941, 726	74, 094, 850	66, 075, 196	80, 127, 062	77, 710, 775	96, 948, 628	114, 292, 853
232, 077, 438	232, 598, 004	231, 148, 996	274, 532, 438	300, 741, 426	274, 820, 866	336, 943, 938	357, 488, 148

ITALY.

Value of imports from principal countries entered

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	9,860,866	7,713,438	8,954,428	6,730,875	5,482,551
Germany.....	4,576,030	5,381,407	7,201,216	7,737,177	4,863,986
Holland.....	8,663,577	5,023,493	3,816,577	3,589,234	3,307,829
Belgium.....	2,790,201	2,784,797	2,483,831	1,267,624	2,321,104
United Kingdom.....	58,345,058	54,319,850	57,461,811	52,718,253	57,228,553
France and Algeria.....	74,604,366	76,281,706	71,381,050	82,640,863	64,089,896
Spain, Portugal, and Gibraltar.....	1,561,177	1,302,171	464,858	1,891,337	1,021,163
Austria.....	43,496,603	49,125,255	45,285,520	51,197,680	45,841,939
Switzerland.....	7,908,561	8,041,345	6,953,404	6,891,588	5,405,351
Greece and Malta.....	1,200,846	1,692,996	7,390,676	997,038	1,211,654
Turkey, Servia, and Roumania.....	8,414,239	15,300,461	5,874,148	12,046,288	10,737,941
Egypt.....	3,583,238	3,279,456	2,847,845	2,240,730	2,275,277
Tunis and Tripoli.....	3,583,238	1,763,950	1,322,623	1,073,659	823,338
United States and Canada.....	9,604,066	9,163,465	8,297,649	9,550,412	7,693,569
Central and South America.....	9,735,885	9,056,718	8,994,379	8,421,748	9,986,018
All other.....	835,885	625,334	1,855,921	1,209,331	888,961
TOTAL EXPORTS.....	248,323,886	251,863,842	234,554,637	256,153,846	223,159,145

Value of domestic produce, including bullion and

Countries.	1873.	1874.	1875.	1876.	1887.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	3,222,531	3,769,869	4,763,240	6,676,642	3,850,736
Germany.....	2,066,293	3,583,817	4,551,362	3,975,607	3,206,693
Holland.....	2,909,861	2,252,310	2,237,835	2,457,276	1,811,498
Belgium.....	939,138	1,367,598	1,301,425	2,440,010	1,625,440
United Kingdom.....	21,382,869	25,482,948	27,036,212	25,845,016	24,358,749
France and Algeria.....	88,402,047	70,954,520	75,763,501	105,640,181	80,845,770
Spain, Portugal, and Gibraltar.....	1,323,401	1,506,751	1,681,030	1,899,313	2,351,705
Austria.....	42,776,520	40,743,844	36,980,780	36,202,940	29,900,408
Switzerland.....	30,817,061	20,826,437	20,996,856	29,234,096	29,234,096
Greece and Malta.....	3,373,833	1,048,376	2,391,270	1,933,088	1,570,634
Turkey.....	1,300,434	1,663,081	2,550,688	1,178,072	1,644,167
Egypt.....	3,826,611	2,573,655	2,637,345	1,694,347	1,911,668
Tunis and Tripoli.....	734,558	546,769	518,784	654,656	575,912
United States and Canada.....	5,647,952	5,399,175	5,613,405	3,966,943	5,245,547
Central and South America.....	11,086,692	8,101,561	9,481,125	10,769,014	8,908,652
All other.....	339,680	372,876	1,096,976	685,428	(*)
TOTAL EXPORTS.....	218,700,073	190,193,587	199,501,784	234,852,629	183,965,284

* The exports to the several countries for the year 1877 amount to \$12,986,394 more than the

ITALY.

for consumption, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
10,323,093	19,784,057	16,860,417	5,872,218	6,088,571	7,003,005	9,800,518	17,061,400
7,619,583	8,804,274	16,952,848	16,693,921	16,811,202	21,798,630	21,870,890	23,241,060
2,426,396	2,208,806	1,759,581	2,173,750	3,399,309	2,005,656	1,639,585	2,849,889
2,946,724	2,739,635	2,389,147	2,827,643	2,918,190	4,259,124	7,026,744	6,584,967
45,687,405	49,425,370	50,036,794	69,777,606	57,951,301	57,429,852	57,947,285	60,618,212
52,672,402	58,111,914	59,653,754	70,809,770	81,199,925	70,961,635	56,177,282	72,057,129
840,322	3,028,430	1,124,997	1,485,907	1,821,920	1,725,999	2,443,567	2,744,653
37,936,466	37,512,252	35,080,259	42,209,679	36,732,532	39,968,528	39,772,861	45,598,651
6,469,167	6,258,990	6,639,393	7,155,089	8,914,670	12,520,682	14,521,513	14,862,930
1,068,327	1,959,732	1,324,173	2,964,359	1,327,840	1,618,910	1,214,985	4,313,936
7,799,323	12,752,568	6,760,597	5,205,982	6,370,930	5,429,476	6,655,026	13,152,178
1,833,693	6,089,343	5,201,243	2,512,860	2,819,537	2,511,123	3,346,813	4,089,569
1,368,568	845,726	779,334	1,056,868	774,316	2,146,160	1,924,596	2,298,487
10,467,548	13,861,839	14,617,241	12,141,051	13,315,263	11,298,413	11,625,232	12,985,988
5,388,860	5,570,366	8,163,549	7,148,720	7,631,376	5,347,644	4,929,790	4,593,014
11,762,412	15,593,851	10,307,558	7,003,468	13,265,541	20,455,447	18,941,040	15,899,563
206,633,134	243,498,643	230,540,485	257,058,900	259,662,393	266,395,584	259,346,645	304,030,741

specie, exported to the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
3,418,323	4,767,486	3,646,785	5,389,139	4,350,220	4,368,183	4,397,812	3,502,564
4,023,837	4,593,400	15,127,340	13,121,105	14,100,194	17,080,500	21,065,463	20,313,250
1,930,000	1,087,555	1,842,568	1,400,601	1,489,960	1,386,319	1,604,988	1,386,705
1,255,465	1,161,088	775,880	1,181,739	3,164,647	3,468,982	3,928,322	3,950,131
18,699,384	18,241,009	16,159,504	15,947,783	17,844,201	17,873,887	17,806,810	14,235,487
94,433,356	91,301,931	97,572,887	106,981,637	90,541,318	98,231,566	82,399,034	90,412,370
2,715,896	2,138,440	2,018,557	2,186,690	4,378,591	2,539,880	2,459,592	2,796,956
33,459,831	39,910,084	32,098,602	29,098,417	23,310,188	26,489,829	21,468,409	19,645,277
19,092,718	20,729,987	19,732,513	23,981,166	25,069,156	24,010,744	24,925,371	24,099,717
2,654,522	2,733,652	3,248,576	3,183,535	2,431,028	3,255,717	3,078,786	3,218,082
2,864,699	3,461,841	2,791,745	3,345,076	2,671,506	3,275,017	3,078,786	3,102,861
1,497,690	1,981,045	2,333,756	2,771,866	3,789,761	4,298,110	3,028,170	2,532,962
578,035	790,132	697,502	944,349	1,208,566	1,782,355	1,420,480	2,113,543
7,043,728	11,953,648	10,565,206	11,001,000	11,864,482	11,397,036	10,639,247	8,807,169
5,362,312	6,042,444	5,011,245	6,196,458	6,533,295	7,565,966	6,024,490	5,825,126
2,713,387	2,759,625	5,409,211	1,887,585	5,572,849	4,562,013	4,767,801	3,961,783
201,743,093	213,653,367	218,531,777	230,118,146	223,075,962	231,586,104	211,608,481	218,923,958

amount given as the sum of the total exports. The error occurs in the official returns.

ITALY—Continued.

Quantities and value of principal articles

Articles.		1873.	1874.	1875.	1876.	1877.
Cheese.....	{ pounds.....	13,222,000	15,386,800	17,212,800	15,631,000	14,757,000
	{ dollars.....	2,307,701	2,686,946	3,004,238	2,742,570	2,590,284
Coal.....	{ tons.....	1,057,403	1,134,100	1,184,000	1,550,400	1,452,900
	{ dollars.....	9,250,961	7,957,909	7,770,952	9,000,555	7,697,998
Coffee.....	{ pounds.....	28,512,000	23,529,000	29,876,000	32,700,000	26,844,000
	{ dollars.....	6,253,007	5,367,158	6,552,157	6,318,753	5,090,497
Cotton.....	{ pounds.....	52,580,000	67,904,000	40,868,000	44,442,200	53,107,400
	{ dollars.....	10,377,610	11,924,891	6,637,463	6,627,813	7,929,212
Cotton yarn.....	{ pounds.....	24,015,000	23,661,000	26,270,200	29,964,000	28,333,000
	{ dollars.....	8,109,860	7,237,114	7,918,878	8,622,428	8,034,397
Cotton tissues, unbleached.....	{ pounds.....	5,992,800	6,800,400	8,429,200	8,074,000	6,980,000
	{ dollars.....	2,628,823	2,760,551	3,401,625	3,187,009	2,572,111
Cotton tissues, bleached.....	{ pounds.....	5,009,400	4,411,000	5,395,000	5,077,600	5,077,000
	{ dollars.....	2,417,132	2,012,411	2,340,818	2,227,320	2,147,961
Cotton tissues, colored.....	{ pounds.....	4,061,200	3,658,600	4,444,200	4,523,200	3,810,400
	{ dollars.....	8,206,808	2,095,824	3,259,770	2,777,270	2,173,373
Cotton tissues, printed.....	{ pounds.....	7,125,800	6,360,200	7,793,600	7,350,000	6,562,000
	{ dollars.....	6,252,621	5,309,237	6,272,886	5,810,844	5,181,278
Fish.....	{ pounds.....	76,058,400	95,235,800	88,837,600	81,207,000	81,804,800
	{ dollars.....	3,651,174	4,289,824	4,019,611	3,978,110	3,848,298
Grain, wheat.....	{ bushels.....	9,873,820	13,601,952	11,610,730	12,091,563	7,728,093
	{ dollars.....	19,702,248	21,096,414	15,011,732	17,705,010	12,180,230
Hides, raw and dried.....	{ pounds.....	39,831,000	30,010,200	31,148,200	30,591,000	29,629,600
	{ dollars.....	9,434,805	7,108,576	7,107,865	6,709,259	6,398,311
Horses.....	{ number.....	10,537	11,000	14,276	14,738	4,634
	{ dollars.....	630,483	1,094,274	1,371,651	1,625,446	642,600
Iron in bars, first fusion.....	{ tons.....	45,591	54,469	58,190	52,480	53,040
	{ dollars.....	2,799,658	3,344,883	2,987,008	2,851,470	2,870,223
Linen and hemp yarn.....	{ pounds.....	9,031,200	8,401,800	9,907,600	8,034,400	8,855,800
	{ dollars.....	3,556,640	3,328,492	3,700,582	2,868,613	2,925,108
Machinery.....	{ pounds.....	2,893,842	5,922,784	3,973,870	4,159,922	4,133,131
	{ dollars.....	10,604,200	7,000,400	17,861,000	4,818,000	9,847,200
Oil, olive.....	{ pounds.....	1,478,870	921,189	2,115,473	473,622	1,269,358
	{ dollars.....	75,684,400	96,538,200	99,437,800	96,546,800	100,803,200
Oil, mineral, refined.....	{ pounds.....	3,310,793	2,964,287	3,062,887	3,860,781	4,339,412
	{ tons.....		54,554	56,587	43,018	61,867
Railway materials; wheels.....	{ dollars.....		3,351,638	2,984,359	1,509,453	2,153,494
Rice.....	{ pounds.....		48,206,400	19,258,800	41,186,200	35,849,000
	{ dollars.....		1,057,254	591,592	1,204,536	1,572,564
Silk, unbleached, raw or twisted.....	{ pounds.....	1,280,720	1,298,000	1,526,800	3,855,000	1,553,200
	{ dollars.....	7,639,827	7,411,588	6,698,065	23,541,368	7,492,067
Silk manufactures.....	{ pounds.....	289,520	420,200	517,000	473,000	308,200
	{ dollars.....	6,095,712	6,518,189	7,126,525	8,052,923	5,098,004
Silk-worms' eggs, on cards.....	{ pounds.....	67,212	173,364	168,108	105,138	277,145
	{ dollars.....	2,000,018	7,604,007	4,292,706	3,099,888	2,917,581
Sugar, raw.....	{ pounds.....	65,454,400	75,461,400	83,272,200	82,145,800	104,268,800
	{ dollars.....	4,503,786	3,310,143	3,652,718	5,044,634	6,857,869
Sugar, refined.....	{ pounds.....	112,230,800	90,202,400	108,881,600	91,244,800	82,104,200
	{ dollars.....	6,353,359	7,833,077	8,102,004	8,080,112	7,210,673
Timber.....	{ pounds.....	5,644,097	5,172,014	4,490,917	7,197,935	8,406,632
	{ dollars.....	20,451,400	25,431,000	38,810,200	44,085,800	41,022,400
Tobacco.....	{ pounds.....	4,396,610	5,287,235	6,128,528	6,187,946	5,081,854
	{ dollars.....	10,903,200	14,412,200	14,800,000	17,743,000	17,622,000
Wool.....	{ pounds.....	4,224,286	5,255,776	5,394,736	6,093,433	6,647,885
Wool manufactures, pure.....	{ dollars.....		8,003,903	8,870,066	8,723,021	8,102,526
Wool manufactures, mixed.....	{ dollars.....		(*)	(*)	(*)	(*)
All other.....	{ dollars.....	99,708,890	91,271,095	84,101,984	81,126,890	75,585,871
TOTAL IMPORTS.....	{ dollars.....	243,405,810	250,059,871	232,935,807	232,266,440	220,318,704

* "Mixed woollens" not specially designated previous to 1876, and

ITALY—Continued.

imported and entered for home consumption.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
15,587,000	15,726,600	16,478,000	19,793,400	20,057,400	19,745,800	19,188,200	22,264,800
2,734,617	2,781,251	3,033,960	3,290,142	3,197,624	3,205,923	3,119,669	3,068,737
1,447,500	1,678,480	1,901,800	2,270,800	2,308,000	2,584,100	2,964,800	3,263,000
7,673,101	8,823,000	7,297,778	12,004,460	11,780,913	12,705,903	13,672,083	13,698,754
27,932,400	34,089,000	23,478,400	31,103,600	31,002,000	33,750,200	33,824,800	38,029,180
5,268,514	6,429,602	4,423,771	5,190,559	4,633,122	5,094,105	5,028,422	6,831,042
59,378,000	81,470,400	103,958,800	106,090,400	138,888,200	143,078,800	145,498,000	178,222,595
7,813,219	12,686,031	15,950,942	15,439,033	19,417,537	17,567,331	19,692,017	17,456,008
19,518,200	14,886,880	12,702,800	20,220,000	19,858,400	19,760,000	20,579,000	19,938,810
5,218,918	4,480,199	3,952,854	7,151,036	5,436,810	5,163,171	4,510,939	4,112,444
7,288,000	5,718,400	5,414,200	7,629,600	7,337,000	8,426,200	7,769,400	8,214,625
2,558,373	1,872,800	1,704,383	2,261,707	2,154,845	2,324,492	2,115,666	2,164,708
6,208,200	5,095,000	4,666,200	7,125,800	6,146,800	7,194,066	6,787,000	6,667,920
2,501,754	2,061,433	1,829,640	2,671,594	2,248,450	2,452,958	2,350,380	2,105,244
2,181,200	4,102,400	3,084,200	5,332,800	5,022,000	5,684,800	6,235,000	6,110,025
1,654,681	1,677,770	1,503,760	2,034,029	1,900,278	2,023,219	2,208,376	2,064,521
5,811,200	5,084,200	5,948,800	8,498,600	7,224,800	7,414,066	7,478,600	6,961,080
4,391,272	2,947,496	3,556,463	4,600,848	3,823,927	3,725,093	3,707,916	3,361,674
73,530,000	87,318,000	95,018,800	108,835,200	86,026,600	86,510,400	82,318,000	96,126,975
8,538,123	4,115,918	4,528,562	5,039,302	5,455,734	6,864,049	5,193,758	5,555,891
12,717,080	17,940,500	8,448,066	5,414,488	6,046,806	8,598,828	12,970,540	26,580,240
17,673,826	29,220,272	13,314,491	7,605,881	7,788,111	10,816,429	14,793,708	27,232,107
22,899,200	27,040,200	23,168,200	29,887,600	30,090,000	23,822,000	34,425,400	38,644,880
5,131,677	5,930,504	5,284,840	6,464,728	7,199,771	7,121,121	7,988,287	8,960,780
7,822	10,221	17,464	20,584	15,797	17,467	22,743	31,791
1,056,615	2,169,909	3,370,552	4,369,906	3,883,761	3,799,302	4,823,261	4,693,210
47,708	60,248	63,219	92,437	96,148	118,697	128,387	135,516
2,899,596	2,884,345	3,285,174	4,167,160	3,618,948	4,161,080	4,015,865	3,986,223
11,637,800	8,032,200	8,419,400	12,104,400	12,766,600	13,860,600	15,312,000	13,278,510
3,930,710	2,818,705	2,806,413	3,822,558	3,809,627	4,038,068	4,133,674	3,666,192
3,727,798	3,431,926	5,014,140	5,983,772	7,496,506	7,791,858	7,740,458	8,443,171
2,560,800	11,068,800	8,120,800	19,740,000	4,246,000	24,250,000	20,558,000	40,025,180
810,327	1,255,658	3,36,837	2,161,688	400,832	2,840,818	2,073,978	3,833,651
103,851,000	128,834,200	126,636,200	181,066,200	134,642,200	148,786,000	162,124,600	204,434,370
2,733,073	3,890,624	3,833,803	3,334,268	3,442,155	3,785,809	3,840,121	3,578,799
90,301	60,722	61,479	80,159	146,595	130,481	108,780	113,424
1,241,183	1,917,648	2,941,820	2,742,530	4,620,084	3,482,696	2,764,918	2,925,494
26,305,400	56,529,000	117,119,200	50,832,200	96,415,000	109,596,200	207,886,800	100,629,586
1,034,533	1,963,654	8,801,621	1,521,612	2,664,365	4,463,818	5,102,534	1,890,049
2,439,800	2,970,000	2,428,800	1,577,400	1,918,400	1,922,800	2,171,400	899,000
11,120,836	13,548,600	10,228,421	6,645,855	7,673,820	7,063,292	7,609,990	5,672,656
486,200	462,000	554,400	728,200	638,000	657,400	695,200	782,775
4,524,692	17,156,928	3,628,442	4,685,654	3,880,265	4,006,715	4,012,663	4,500,204
103,327	224,952	53,273	61,492	41,188	-----	-----	-----
679,116	2,859,811	1,869,898	2,049,853	1,299,276	-----	-----	-----
105,201,800	142,956,000	79,543,200	129,170,800	185,491,400	171,862,400	194,491,000	304,787,805
6,460,299	8,778,798	4,536,993	7,865,652	7,131,786	8,268,813	6,824,860	12,600,584
65,621,600	80,511,200	32,623,800	38,304,200	42,303,800	32,447,800	16,711,201	28,753,200
4,415,261	6,366,648	2,462,765	2,688,297	2,780,876	1,962,725	806,354	1,316,260
5,541,609	5,619,581	5,728,029	6,627,260	6,094,090	6,694,784	6,580,348	6,983,319
32,226,000	32,368,000	37,083,200	33,653,400	46,968,000	20,796,000	28,662,000	32,455,895
3,641,454	3,178,131	3,318,249	3,895,256	4,902,007	3,240,537	3,847,971	3,928,778
14,885,800	18,770,400	16,121,600	20,979,200	16,517,000	20,988,000	23,156,200	24,499,755
3,426,388	6,591,915	5,940,540	7,361,599	5,796,562	6,170,962	5,677,288	5,599,509
11,032,719	5,739,341	6,541,734	8,362,883	7,313,770	8,025,627	8,708,160	8,068,751
(*)	2,387,616	3,896,281	3,896,281	3,825,492	3,823,234	3,492,663	3,242,274
67,394,544	69,951,390	90,661,061	85,196,041	83,170,767	89,823,191	93,240,416	100,226,810
204,377,850	240,676,404	228,931,099	239,071,809	236,615,105	248,237,565	254,312,240	281,348,838

up to that period, included in "wool manufactures, pure."

ITALY—Continued.

Quantities and value of the principal

Articles.		1873.	1874.	1875.	1876.	1877.
Animals:						
Horned cattle	{ number..	73,240	43,653	35,846	64,828	118,386
	{ dollars..	6,806,724	3,407,994	3,131,618	5,148,661	9,040,699
Swine	{ number..	53,658	50,492	37,646	105,087	130,201
	{ dollars..	786,874	638,637	336,013	1,390,179	1,499,996
Horses	{ number..	1,908	2,129	1,374	1,585	1,874
	{ dollars..	115,607	132,012	96,307	111,075	149,382
Coral, manufactures	{ pounds		81,913	69,898	78,863	123,883
	{ dollars..		7,185,969	6,031,966	6,918,471	10,868,795
Cotton, raw	{ pounds	5,112,800	17,067,600	4,373,000	1,405,800	1,746,800
	{ dollars..	1,009,004	2,894,588	697,116	299,598	269,094
Dyeing and tanning stuffs:						
Unground	{ pounds	19,109,200	31,664,600	22,275,000	21,824,000	26,425,200
	{ dollars..	700,011	1,168,685	820,686	804,810	905,348
Ground	{ pounds	17,663,800	39,635,200	49,453,400	55,376,200	4,457,200
	{ dollars..	804,810	1,808,824	2,255,205	2,526,370	288,229
Eggs	{ pounds	12,049,400	19,192,800	19,953,200	54,355,400	46,274,800
	{ dollars..	1,005,044	1,569,584	1,663,081	4,708,451	4,038,983
Fruit:						
Oranges, bergamots, and lemons	{ pounds	183,130,200	154,886,600	207,319,200	196,266,400	213,340,600
	{ dollars..	4,659,020	3,940,481	6,352,209	6,026,232	6,453,920
Almonds, shelled	{ pounds	12,975,600	14,284,600	10,569,600	18,067,000	5,293,400
	{ dollars..	1,707,471	1,687,540	1,360,565	2,697,365	760,596
Grain:						
Wheat	{ bushels	3,897,400	1,473,556	2,211,000	2,740,730	2,665,000
	{ dollars..	6,659,991	2,090,383	2,864,892	3,885,128	4,067,089
Other	{ tons	118,465	71,196	151,180	152,455	93,203
	{ dollars..	5,220,457	2,637,757	5,060,460	5,617,458	3,742,403
Hemp and flax, raw	{ pounds	54,707,400	55,083,900	63,157,600	50,618,400	40,766,400
	{ dollars..	4,940,414	5,557,628	5,568,014	5,231,458	2,973,519
Marble	{ tons	23,552	106,128	95,552	75,114	76,872
	{ dollars..					
Meat and poultry	{ pounds	7,246,800	7,590,000	8,203,800	8,857,200	13,004,200
	{ dollars..	1,335,753	1,800,943	1,480,310	1,539,368	2,064,047
Olive oil	{ pounds	132,573,000	104,902,600	203,867,400	178,838,000	132,506,000
	{ dollars..	18,608,481	16,565,190	23,615,724	23,533,455	19,180,340
Rice, cleaned	{ pounds	146,126,200	151,102,600	160,091,800	117,473,400	95,924,400
	{ dollars..	3,266,718	3,814,003	4,915,517	3,606,977	4,207,563
Silk:						
Cocoons	{ quintals		8,677	12,943	9,642	6,536
	{ dollars..		3,181,798	3,746,095	4,280,161	2,144,423
Raw and thrown	{ pounds	7,339,200	6,575,800	7,541,600	7,935,400	5,216,200
	{ dollars..	69,789,573	48,114,321	47,967,641	69,624,750	34,324,471
Waste	{ pounds	5,288,800	6,404,200	5,572,600	3,511,200	3,880,800
	{ dollars..	7,354,517	7,304,664	4,889,463	4,773,662	4,005,810
Manufactures	{ pounds	257,466	228,054	161,581	170,320	135,659
	{ dollars..	4,742,975	3,879,107	2,261,881	2,905,167	2,031,518
Skins, raw	{ quintals		18,830	42,494	20,124	21,754
	{ dollars..		972,913	2,173,373	5,009,778	1,091,608
Straw plaiting	{ quintals		6,401	6,837	5,755	5,758
	{ dollars..		3,012,151	4,585,294	3,683,611	2,889,030
Sulphur, unrefined	{ tons	228,164	190,630	236,658	214,219	229,484
	{ dollars..	5,858,708	5,018,772	5,905,492	5,449,741	4,831,755
Wine, in casks	{ gallons	7,687,347	6,842,003	8,585,525	13,157,668	9,875,035
	{ dollars..	3,925,040	3,004,817	3,408,730	4,807,822	2,053,713
Zinc ore	{ tons	62,258	69,455	70,951	73,312	87,519
	{ dollars..	873,711	974,843	965,880	1,068,345	1,223,445
All other articles	{ dollars	68,238,526	57,119,473	50,398,552	61,546,831	65,948,865
TOTAL EXPORTS	{ dollars	218,359,428	183,790,477	197,302,168	233,289,921	191,835,631

ITALY—Continued.

articles of domestic production exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
128,227	82,550	54,626	41,916	82,085	97,911	55,740	35,694
9,898,198	6,459,131	4,767,979	3,820,758	7,205,176	8,065,615	4,947,941	3,058,809
93,156	81,807	56,845	41,525	27,848	38,061	45,375	88,980
1,108,206	1,020,970	753,279	538,645	353,576	519,556	471,306	402,791
2,874	3,710	3,391	3,055	3,507	2,739	2,724	2,561
332,702	644,427	523,609	471,692	541,558	422,863	420,547	395,843
78,356	74,205	120,828	190,087	240,600	256,456	236,003	244,625
6,433,462	6,515,101	8,480,034	12,506,786	15,823,877	13,498,999	6,211,126	4,282,477
9,820,200	26,825,200	39,789,920	36,724,600	82,161,800	48,972,000	44,701,800	42,245,595
1,292,907	4,158,185	6,108,450	5,815,992	4,541,270	5,799,650	5,097,323	4,250,246
41,417,000	33,047,200	24,545,400	24,692,800	29,166,800	25,115,200	24,767,000	29,547,000
1,090,264	505,467	581,816	519,942	614,126	727,031	716,965	775,860
32,798,000	59,290,000	55,081,400	56,498,800	60,578,000	56,515,800	45,885,600	48,293,910
1,157,228	1,404,847	1,804,680	1,238,674	1,850,421	1,784,864	1,542,456	1,851,000
50,170,400	51,009,200	55,213,400	48,028,200	50,078,000	52,177,400	65,505,000	63,537,870
5,287,814	5,817,218	6,781,248	5,477,340	6,395,441	5,950,576	7,470,644	7,244,641
211,261,600	218,816,400	204,193,000	281,652,800	262,768,800	238,826,400	381,154,400	335,177,640
4,650,721	5,153,015	4,478,572	5,930,118	7,801,903	7,162,280	6,687,450	5,867,586
18,490,400	11,843,200	12,511,400	13,973,800	16,652,800	18,984,800	20,534,200	17,898,075
2,650,063	2,069,804	2,140,370	2,207,148	2,178,198	2,261,574	2,605,900	2,577,129
2,170,066	833,066	2,994,756	3,475,633	3,527,773	2,940,923	1,391,610	479,919
2,555,049	1,859,492	4,681,601	4,939,449	4,649,396	3,560,464	1,574,860	552,559
102,815	69,184	67,486	53,024	86,611	94,270	95,941	79,550
2,556,797	2,702,356	2,419,062	1,672,152	2,766,462	2,977,218	2,899,489	2,848,494
73,893,400	80,174,600	50,945,400	61,881,600	61,223,800	78,456,400	74,701,000	69,517,190
6,474,571	7,736,761	4,468,143	5,128,782	4,748,765	5,854,289	5,248,056	5,181,065
78,498	109,588	119,980	107,185	121,680	128,806	125,928	122,939
2,358,460	5,294,622	2,929,354	3,040,908	3,228,118	4,565,029	4,237,701	3,720,265
12,180,900	18,919,400	13,814,400	12,808,400	15,151,400	17,109,400	16,838,600	20,896,785
2,015,113	2,398,218	1,985,777	1,878,392	2,278,365	2,586,779	2,395,130	3,092,439
113,108,600	185,041,000	128,852,000	149,157,800	179,036,200	177,877,200	118,529,400	79,280,775
16,868,636	27,856,857	16,692,670	18,819,367	18,847,801	19,451,119	14,087,662	9,021,913
153,730,000	168,047,200	167,259,400	183,915,600	173,837,800	169,934,600	157,282,400	151,031,475
4,174,064	6,566,052	6,162,183	6,211,705	5,691,877	5,366,751	4,829,246	4,594,721
9,194	10,016	13,530	14,512	7,908	12,107	9,739	6,807
2,484,296	2,319,667	3,933,919	3,220,977	1,753,984	2,570,874	1,973,618	1,234,621
6,838,200	6,693,900	7,691,200	9,616,200	9,070,600	9,114,600	8,530,800	9,210,285
43,513,978	45,238,428	47,238,662	59,053,561	51,720,526	47,972,466	46,482,120	44,336,732
4,564,200	4,868,600	4,688,200	5,555,000	4,818,000	5,625,400	5,979,600	4,615,065
3,997,802	4,711,180	5,271,216	6,819,592	5,739,627	5,696,202	5,211,000	3,542,129
212,905	208,824	216,757	284,212	276,811	293,916	406,632	367,888
2,251,345	1,853,590	2,023,026	2,205,990	2,590,989	2,591,025	3,373,640	2,851,575
25,840	29,825	27,802	24,442	27,044	42,457	47,700	43,952
1,371,284	1,496,715	1,448,851	1,226,515	1,544,579	2,313,877	2,649,504	2,503,017
6,066	6,192	6,809	8,224	10,181	9,866	9,485	8,207
3,512,214	2,029,040	2,891,140	3,491,949	4,322,814	3,808,276	4,027,351	3,484,615
240,150	266,498	315,864	318,302	300,682	317,219	304,931	318,906
8,054,407	4,675,811	6,484,028	6,482,098	5,008,695	5,844,040	5,182,655	5,024,369
13,863,925	26,639,000	57,826,718	46,018,414	34,659,104	68,974,787	62,896,954	38,674,488
3,026,698	5,129,554	12,671,415	11,765,280	8,858,637	15,110,818	15,042,990	10,784,081
58,792	57,400	93,830	77,959	117,595	117,016	98,519	118,819
722,013	840,129	1,069,992	820,636	1,185,406	1,231,919	1,087,182	1,238,086
55,685,412	50,744,646	54,685,506	51,410,538	50,366,695	49,717,765	49,246,660	48,883,682
192,729,414	206,849,294	212,970,483	224,718,971	221,867,782	228,050,344	205,620,551	182,542,874

NORWAY.

Value of imports from

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia and Finland		5,697,728	4,363,304	5,395,230	5,864,468
Sweden		3,520,984	3,520,880	3,812,248	3,731,900
Denmark		5,252,532	5,694,768	5,128,160	4,825,608
Germany		13,239,836	12,632,548	11,957,624	14,561,780
United Kingdom		14,843,984	13,809,504	12,145,492	13,388,744
Holland		1,816,772	1,583,344	1,836,604	2,107,532
Belgium		807,752	586,116	603,176	639,448
France		2,374,480	2,305,068	2,630,080	2,559,936
Portugal		525,816	408,432	368,232	490,976
Brazil		680,720	887,348	375,736	741,824
North America		544,308	651,240	564,944	1,051,900
All other		463,324	944,932	783,118	894,760
TOTAL IMPORTS		49,788,236	47,412,664	44,862,664	50,858,896

Value of exports to the

Countries.	1873.	1874.	1875.	1876.	1877.
		<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia and Finland		1,884,220	1,531,888	1,282,380	623,368
Sweden		3,905,564	3,415,124	3,994,808	3,222,068
Denmark		2,101,388	1,576,376	1,577,180	1,344,020
Germany		5,225,464	4,819,176	5,040,008	4,874,052
United Kingdom		10,151,840	7,819,436	9,754,128	9,181,948
Holland		1,960,152	1,675,268	1,900,156	1,744,948
Belgium		864,836	626,316	737,536	548,328
France		2,873,764	2,074,588	2,806,764	2,503,388
Spain		2,410,124	2,362,688	2,809,176	2,633,904
Italy and Austria		794,084	979,004	937,196	1,149,720
All other countries		809,300	857,600	921,884	1,415,308
TOTAL EXPORTS		32,490,796	27,737,464	31,660,716	29,242,552

NORWAY.

the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
3,960,884	4,344,280	4,120,344	2,674,872	3,481,820	3,913,068	4,208,672	4,378,584
3,326,148	3,090,308	3,682,760	4,069,948	5,091,916	5,121,748	3,861,844	4,879,120
4,006,832	3,708,976	4,945,672	5,427,268	4,073,064	3,537,600	3,494,828	3,207,960
11,289,464	9,415,108	10,370,260	12,120,300	13,464,052	12,542,400	12,270,648	11,164,880
9,521,772	10,001,760	11,203,204	11,356,768	11,559,376	11,345,244	11,283,336	10,010,604
1,684,112	1,410,484	1,574,292	1,775,232	1,499,996	1,433,264	1,448,540	1,293,904
554,492	603,852	762,728	862,092	664,640	692,512	715,828	685,696
1,272,464	1,041,180	1,660,908	2,610,820	1,451,488	1,561,468	1,487,132	1,222,684
179,560	354,832	393,060	447,908	232,088	259,424	276,844	159,460
167,282	179,560	158,120	84,152	47,168	11,524	12,984	37,785
1,080,576	618,008	502,768	796,764	688,780	1,657,848	1,724,044	1,973,284
461,228	616,132	1,040,472	1,983,472	753,482	1,186,320	1,773,748	558,728
37,613,264	35,472,480	40,433,428	44,229,196	43,007,300	43,232,420	42,557,828	39,022,884

principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
950,864	884,400	816,080	1,660,796	1,171,160	964,300	1,139,608	743,968
2,383,324	2,384,664	3,658,786	3,704,564	4,003,384	3,826,504	3,495,256	3,500,080
1,147,040	1,342,412	1,569,944	1,757,270	1,914,800	1,501,604	1,632,385	1,305,696
4,330,612	4,565,380	3,753,608	4,411,280	4,297,916	4,494,380	4,092,896	3,252,448
7,611,468	6,816,580	10,527,040	10,957,448	10,313,176	10,748,676	9,989,432	9,160,766
1,257,456	1,487,668	1,618,092	1,956,400	1,790,052	1,442,912	1,439,696	1,451,488
506,892	543,772	774,520	638,108	948,988	890,028	1,013,308	1,088,616
1,756,204	1,636,676	2,280,948	2,224,936	2,729,312	2,353,844	2,553,296	2,108,532
2,938,888	2,557,236	2,533,940	3,320,788	3,492,576	3,256,468	3,056,272	2,717,520
628,460	860,548	812,844	883,864	1,196,084	647,488	856,528	794,620
1,351,632	832,408	801,320	894,852	1,124,432	1,099,068	800,715	1,200,650
24,856,940	23,011,764	29,142,052	32,410,312	32,951,940	31,125,252	30,069,382	27,819,384

NORWAY—Continued.

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Butter..... { pounds { dollars...	783, 096	1, 088, 616	5, 777, 200 1, 294, 976	6, 578, 000 1, 602, 640	9, 906, 000 2, 077, 804
Cheese..... { pounds { dollars...	58, 424	80, 400	1, 130, 800 128, 104	848, 800 109, 612	1, 097, 800 135, 340
Coal..... dollars...	1, 633, 996	1, 621, 400	1, 676, 608	1, 364, 656	1, 817, 844
Coffee..... { pounds { dollars...	3, 375, 996	2, 329, 724	15, 070, 000 3, 157, 576	15, 895, 000 3, 000, 576	16, 273, 400 3, 370, 100
Cotton..... { pounds { dollars...	806, 444	898, 872	3, 929, 200 631, 676	5, 051, 200 599, 248	4, 107, 400 505, 180
Cotton manufactures..... dollars	1, 468, 372	1, 627, 224	1, 638, 016	1, 346, 968	1, 530, 280
Cereals:					
Wheat..... { bushels { dollars...	255, 404	396, 640	326, 370 445, 416	187, 308 287, 028	173, 118 251, 920
Rye..... { bushels { dollars...	5, 712, 688	6, 209, 828	5, 545, 452 5, 747, 528	5, 613, 464 5, 936, 200	7, 239, 738 7, 389, 028
Barley..... { bushels { dollars...	1, 677, 412	2, 189, 328	1, 731, 180 1, 828, 204	1, 960, 924 1, 948, 628	2, 290, 268 2, 207, 516
Flour (wheat)..... dollars...	593, 620	664, 640	731, 908	698, 140	745, 576
Rye meal..... dollars...	470, 072	534, 928	562, 532	558, 512	606, 484
Flax, hemp, and jute..... { pounds { dollars...	903, 160	823, 564	8, 395, 200 685, 544	8, 052, 800 674, 824	9, 350, 000 741, 824
Hides and skins..... { pounds { dollars...	1, 139, 000	1, 275, 144	5, 436, 200 997, 764	4, 012, 800 850, 900	4, 888, 400 968, 240
Horses..... { number { dollars...	361 49, 580	635 88, 708	239 35, 376	65 10, 184	201 33, 768
Iron, wrought and unwrought { tons { dollars...	969, 088	1, 270, 856	35, 357 1, 848, 808	20, 434 901, 552	45, 236 1, 209, 484
Ironware, nails, rails, &c... { tons { dollars...	1, 266, 032	1, 069, 532	23, 532 1, 919, 684	21, 529 1, 687, 596	21, 759 1, 673, 660
Lard..... { pounds { dollars...	721, 456	762, 192	7, 572, 400 795, 692	9, 321, 400 1, 024, 564	13, 923, 800 1, 800, 872
Engines and machinery..... dollars...	724, 672	1, 110, 860	928, 352	594, 424	701, 892
Salt..... { bushels { dollars...	610, 236	883, 328	3, 346, 002 653, 652	2, 696, 100 503, 840	4, 188, 888 737, 536
Spirits and brandy..... dollars...	419, 420	746, 112	755, 796	691, 172	595, 496
Sugar, raw..... { pounds { dollars...	664, 372	617, 740	10, 766, 800 608, 360	10, 056, 200 645, 344	12, 500, 400 852, 776
Sugar, refined..... { pounds { dollars...	769, 696	714, 756	9, 653, 600 666, 516	10, 137, 600 782, 828	11, 061, 600 906, 108
Tobacco..... { pounds { dollars...	723, 332	843, 396	4, 026, 000 851, 972	4, 897, 200 1, 031, 976	4, 950, 000 847, 148
Wine..... dollars...	616, 400	658, 744	675, 350	564, 676	604, 876
Wool..... { pounds { dollars...	273, 628	298, 192	807, 400 272, 824	798, 600 268, 534	985, 000 327, 228
Wool manufactures..... dollars	3, 054, 664	3, 882, 784	3, 407, 084	2, 536, 620	2, 958, 184
All other imports..... dollars	15, 006, 928	16, 505, 728	16, 972, 896	14, 846, 220	15, 744, 732
TOTAL IMPORTS.....	44, 807, 188	49, 788, 236	49, 412, 684	44, 862, 664	50, 858, 896

NORWAY—Continued.

and other articles imported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
6,298,800	7,070,800	7,411,800	7,724,200	7,301,800	7,010,800	7,627,400	8,354,745
1,150,792	1,123,876	1,578,520	1,590,692	1,498,120	1,367,336	1,347,236	1,318,560
684,200	565,400	528,000	517,000	671,000	620,400	616,800	579,915
88,708	73,968	76,112	81,740	92,192	81,740	86,564	75,844
1,532,692	1,587,096	1,548,772	1,756,740	1,929,868	1,916,200	1,889,132	2,081,088
13,422,200	15,884,000	15,767,400	16,726,600	15,384,600	17,586,800	16,218,400	17,441,580
2,321,684	2,519,684	2,362,420	2,130,444	1,636,792	1,928,280	1,807,928	1,738,248
5,075,400	4,351,600	4,497,200	4,829,000	5,345,800	5,126,000	5,104,000	4,434,255
568,620	530,104	591,568	646,962	681,740	599,516	621,760	517,508
1,128,280	1,067,444	1,201,712	1,353,182	1,278,092	1,271,928	1,440,768	1,170,892
139,062	105,006	264,034	278,124	329,208	222,716	315,018	280,962
187,600	177,962	398,156	414,000	429,068	336,840	343,844	288,904
6,220,806	6,064,806	5,875,172	5,890,836	8,458,116	5,782,760	5,633,420	6,873,686
5,309,060	5,448,798	5,962,732	6,900,732	4,907,616	6,028,216	4,604,240	5,042,668
2,067,012	1,455,894	1,912,812	2,207,964	1,947,900	2,009,304	1,878,756	1,966,734
1,769,664	1,801,676	1,609,876	1,958,008	1,503,356	1,518,756	1,398,156	1,811,860
760,316	786,580	742,628	714,756	684,472	812,844	866,444	793,816
461,764	519,384	469,586	632,748	694,388	1,140,340	861,084	687,956
8,126,800	7,482,200	8,500,800	8,181,800	9,226,800	7,634,000	9,818,600	7,893,900
566,836	895,800	510,004	470,072	518,312	478,112	617,740	507,056
3,075,600	3,000,800	4,591,400	5,203,000	5,324,000	4,721,200	5,187,600	5,245,095
763,800	696,264	1,028,490	828,388	873,948	884,864	1,014,112	989,456
134	75	299	212	282	295	214	157
20,636	9,380	30,284	22,844	31,068	34,304	25,728	19,028
22,668	23,699	19,973	29,968	29,618	35,842	36,213	35,520
609,164	666,248	585,812	844,200	935,568	1,000,176	946,570	909,324
11,613	16,122	11,629	12,769	18,584	9,788	11,967	12,354
1,066,900	1,268,712	991,064	1,185,096	1,118,900	1,083,524	1,223,512	1,104,428
14,762,000	12,553,400	12,254,400	11,230,800	6,173,200	10,238,800	8,663,600	13,274,100
966,156	276,896	1,098,264	1,040,912	661,960	991,332	701,892	972,572
344,380	480,100	300,964	544,308	529,032	645,344	792,744	597,508
2,471,896	3,073,554	2,951,520	3,845,500	3,771,702	2,957,196	3,482,226	2,626,770
395,568	494,728	519,384	760,048	662,496	443,272	476,504	343,808
399,052	273,360	288,904	333,052	345,452	372,520	347,864	355,636
10,007,800	11,646,800	10,498,400	11,204,600	12,804,000	13,943,600	13,811,600	11,649,015
546,184	567,624	563,004	682,596	686,348	712,076	606,484	438,964
8,815,400	8,113,600	8,687,800	9,457,800	9,684,400	10,214,600	13,019,600	8,921,430
605,144	489,368	601,992	685,812	672,680	659,548	682,080	411,916
4,338,400	4,474,800	5,438,400	4,239,400	3,770,800	8,874,200	4,219,600	3,075,975
667,588	610,036	627,924	593,764	497,944	542,700	618,276	641,592
458,280	391,280	520,188	553,152	534,392	475,700	468,732	463,640
607,200	528,000	792,000	961,200	913,000	952,600	1,001,000	1,036,350
205,556	160,376	289,440	312,828	296,676	307,982	304,448	251,332
2,230,832	1,975,100	2,826,176	3,039,120	3,448,892	2,913,428	3,144,712	2,521,612
12,464,948	10,475,996	10,108,826	14,133,600	15,802,968	15,586,612	15,113,796	13,465,128
37,613,264	35,472,480	40,438,428	44,229,196	43,007,300	43,222,420	42,567,328	39,022,864

NORWAY—Continued.

Quantities and value of

Articles.	1873.	1874.	1875.	1876.	1877.
Beer..... { gallons.....	227,532	168,572	45,630	54,195	64,856
..... { dollars.....			182,770	239,056	314,096
Fish:					
Fresh..... dollars.....	264,516	185,116	212,256	194,838	181,436
Dried cod:..... { pounds.....			126,922,400	116,001,600	147,461,400
..... { dollars.....	4,174,100	4,621,696	4,957,732	5,576,276	5,770,520
Herrings..... dollars.....	4,188,036	4,725,108	4,603,168	5,148,992	3,619,072
All other..... dollars.....	333,392	319,724	380,560	528,764	450,520
Total fish..... dollars.....	8,960,044	9,751,644	10,153,716	11,443,868	10,089,548
Grain, oats..... dollars.....	209,020	216,812	157,852	273,380	80,088
Horses..... dollars.....	6,432	8,040	6,432	17,420	4,040
Ice..... { registered tons.....	154,188	143,512	126,915	141,775	209,220
..... { dollars.....	314,632	360,856	192,960	212,792	224,316
Matches..... dollars.....	77,968	97,016	134,804	223,400	203,460
Skins:					
Calf..... { pounds.....			561,000	495,000	528,800
..... { dollars.....	259,156	171,282	185,992	120,600	115,240
Seal..... { number.....	122,024	107,356	44,818	59,911	53,852
..... { dollars.....	130,784	103,448	62,444	104,252	79,328
Sulphur..... { pounds.....			88,290,400	75,488,600	79,640,600
..... { dollars.....	277,700	344,648	172,456	128,640	135,876
Train oil..... dollars.....	1,538,856	1,425,760	1,585,228	1,420,688	1,823,740
Wood:					
Rough or planed..... dollars.....	3,345,176	3,549,928	2,848,572	3,091,648	3,819,568
Hewn, in boards, laths, &c. dollars.....	7,308,090	7,188,982	4,278,620	5,384,120	4,965,226
Spars, stakes, pit-props, &c. dollars.....	1,620,328	1,373,768	895,120	1,285,328	999,908
Beams and other hewn wood, dollars.....	1,841,964	1,333,082	1,012,236	1,219,972	891,696
Staves, split wood, fire-wood, &c., dollars.....	902,388	945,236	665,980	887,080	726,548
Total wood..... dollars.....	15,077,946	14,390,796	9,700,528	11,668,148	11,402,976
All other articles..... dollars.....	5,394,510	5,436,482	5,251,336	5,605,452	4,725,264
TOTAL EXPORTS..... dollars.....	32,414,600	32,480,796	27,736,124	31,660,716	29,242,552

NORWAY—Continued.

principal and other articles exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
71, 449 846, 256	42, 886 199, 928	34, 293 143, 112	40, 697 190, 280	44, 970 214, 668	51, 960 243, 880	39, 985 170, 448	..... 102, 108
214, 400 125, 369, 200 5, 215, 280 2, 692, 596 369, 572	230, 212 143, 748, 000 4, 862, 324 3, 291, 576 439, 788	245, 220 158, 887, 000 4, 711, 172 2, 547, 072 510, 808	264, 784 133, 749, 000 5, 935, 396 4, 363, 040 726, 012	220, 408 121, 061, 600 6, 538, 840 3, 256, 468 500, 088	266, 492 93, 211, 800 5, 785, 852 3, 099, 956 365, 284	374, 664 113, 390, 200 5, 040, 812 2, 829, 008 335, 536	531, 176 4, 547, 980 2, 178, 304 346, 524
8, 491, 848	8, 828, 900	8, 014, 272	11, 289, 232	10, 519, 804	9, 537, 584	8, 580, 020	7, 608, 964
83, 348 9, 112	236, 644 26, 800	315, 972 51, 724	222, 440 39, 664	118, 972 18, 760	187, 332 13, 668	150, 616 24, 388	232, 356 35, 644
218, 214 280, 596 316, 240	188, 547 148, 472 244, 916	168, 240 175, 064 407, 360	170, 847 168, 840 626, 048	225, 172 763, 800 361, 500	216, 749 261, 300 341, 700	489, 970 972, 214 425, 584	..... 213, 708 488, 048
490, 600 107, 460	778, 800 190, 280	970, 200 266, 396	895, 400 272, 556	1, 008, 600 270, 844	935, 000 307, 396	970, 200 307, 932	..... 381, 114
66, 026 70, 752	74, 020 69, 412	117, 029 141, 236	60, 238 80, 668	103, 445 160, 428	135, 603 199, 928	109, 506 132, 124	..... 77, 640
89, 520, 200 141, 772 1, 474, 268	92, 282, 400 174, 200 1, 286, 608	143, 567, 600 244, 932 1, 419, 060	135, 693, 800 215, 472 1, 457, 384	136, 898, 400 245, 418 1, 442, 876	130, 717, 400 238, 788 1, 187, 240	150, 277, 600 311, 148 1, 529, 208	..... 189, 878 1, 401, 211
2, 825, 524 2, 995, 168 704, 304	2, 737, 888 2, 065, 476 613, 988	3, 866, 430 3, 489, 628 1, 182, 936	4, 359, 288 3, 142, 568 1, 665, 300	4, 534, 024 3, 609, 150 1, 018, 844	4, 447, 192 2, 988, 036 997, 496	3, 847, 676 2, 863, 312 951, 132	3, 855, 716 2, 676, 516 666, 248
661, 792 642, 664	602, 782 624, 172	712, 344 911, 736	588, 796 966, 944	745, 576 968, 568	404, 948 1, 090, 924	420, 224 976, 200	349, 472 823, 296
7, 849, 452	6, 644, 256	10, 193, 080	10, 122, 696	10, 901, 168	9, 932, 016	9, 060, 544	8, 371, 248
5, 385, 786	3, 454, 020	7, 830, 052	7, 724, 832	7, 921, 902	8, 701, 676	8, 405, 076	8, 277, 475
24, 556, 840	21, 499, 496	29, 142, 052	32, 410, 312	32, 951, 940	31, 128, 108	30, 069, 382	27, 319, 384

PORTUGAL.

Value of imports from principal countries entered

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	971, 244	747, 468	1, 293, 624	556, 092	550, 152
Sweden and Norway.....	630, 808	834, 840	790, 236	997, 920	1, 311, 768
Germany.....	1, 130, 004	605, 448	879, 012	682, 602	1, 211, 976
United Kingdom.....	20, 365, 884	14, 360, 486	19, 883, 340	18, 944, 604	14, 836, 608
Holland.....	413, 532	780, 516	470, 016	321, 722	269, 460
Belgium.....	152, 848	69, 876	379, 296	604, 476	876, 960
France.....	4, 440, 204	4, 732, 864	6, 386, 256	5, 896, 908	5, 573, 232
Spain.....	2, 092, 224	3, 511, 944	2, 449, 224	2, 310, 552	3, 120, 876
Italy.....	92, 016	88, 884	217, 080	286, 848	264, 384
United States.....	1, 016, 280	1, 387, 800	2, 489, 400	2, 310, 120	2, 319, 064
Brasil.....	3, 455, 136	3, 434, 508	2, 681, 640	2, 689, 260	2, 877, 600
Morocco.....	324, 648	100, 116	137, 976	301, 644	428, 112
Portuguese Africa.....	808, 596	895, 428	826, 632	800, 820	818, 532
Portuguese Asia.....	54, 962	11, 664	33, 048	63, 828	14, 472
All other.....	201, 294	90, 612	32, 340	1, 154, 854	64, 044
TOTAL IMPORTS.....	36, 769, 680	31, 672, 404	38, 949, 120	37, 320, 640	34, 537, 320

Value of exports of domestic produce to

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	481, 596	388, 908	201, 744	184, 680	8, 964
Sweden and Norway.....	328, 212	506, 196	101, 304	163, 944	24, 732
Germany.....	521, 100	661, 848	884, 520	992, 736	970, 448
United Kingdom.....	14, 774, 464	12, 913, 560	15, 025, 824	12, 782, 340	13, 487, 772
Holland.....	524, 998	325, 320	276, 048	206, 820	135, 432
Belgium.....	243, 972	431, 568	103, 464	143, 208	94, 284
France.....	1, 127, 028	1, 066, 608	1, 373, 652	2, 345, 976	2, 230, 308
Spain.....	1, 967, 220	1, 511, 892	1, 437, 372	1, 427, 220	1, 741, 176
Italy.....	254, 988	233, 280	153, 900	155, 952	173, 016
United States.....	199, 152	288, 252	406, 836	432, 540	821, 880
Brazil.....	3, 840, 048	4, 619, 980	4, 504, 464	4, 035, 204	5, 708, 664
Morocco.....	3, 348	13, 284	105, 624	95, 040	3, 024
Portuguese Africa.....	545, 724	906, 444	1, 163, 592	1, 055, 756	776, 520
Portuguese Asia.....	18, 468	24, 516	23, 112	52, 812	67, 932
All other countries.....	670, 282	647, 264	571, 104	413, 692	309, 808
TOTAL EXPORTS.....	25, 504, 200	24, 838, 920	28, 232, 560	24, 487, 920	26, 553, 960

PORTUGAL.

for home consumption (bullion and specie included).

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
628,236	583,032	537,280	554,256	807,840	.....	.....	.....
1,470,204	976,478	1,308,960	828,036	801,360	.....	.....	.....
1,233,016	1,738,564	2,008,840	2,721,600	2,883,600	.....	.....	.....
16,273,116	13,692,132	16,450,500	16,493,436	16,431,120	.....	.....	.....
346,680	442,692	297,000	414,720	276,460	.....	.....	.....
1,182,168	1,283,200	888,680	975,240	1,084,320	.....	.....	.....
5,165,748	4,606,092	4,471,200	4,753,836	4,410,720	.....	.....	.....
2,706,696	2,647,620	2,256,120	2,856,776	2,114,640	.....	.....	.....
188,784	301,644	432,000	379,080	709,560	.....	.....	.....
2,455,380	6,468,444	5,720,840	5,985,792	6,145,200	.....	.....	.....
2,386,868	2,325,888	2,311,208	2,509,884	2,506,080	.....	.....	.....
109,080	321,840	81,240	119,850	213,840	.....	.....	.....
409,644	750,492	667,440	782,892	768,120	.....	.....	.....
37,800	31,212	54,300	8,748	2,160	.....	.....	.....
178,200	572,350	237,180	373,494	849,000	.....	.....	.....
84,791,120	36,769,680	37,743,840	39,347,640	40,004,640	38,004,474	38,213,447	.....

principal countries, bullion and specie included.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
118,476	134,352	697,248	870,440	409,320	.....	.....	.....
76,680	159,300	482,760	279,612	244,080	.....	.....	.....
599,292	841,428	1,223,100	804,492	1,011,960	.....	.....	.....
11,823,732	11,398,168	11,645,424	9,357,120	13,215,960	.....	.....	.....
150,444	177,660	295,704	166,752	126,440	.....	.....	.....
331,668	465,588	345,708	304,128	230,040	.....	.....	.....
1,120,606	1,256,580	1,592,136	2,800,872	2,984,040	.....	.....	.....
1,300,104	1,228,824	1,920,132	1,752,192	1,577,880	.....	.....	.....
249,588	263,864	325,404	163,080	179,280	.....	.....	.....
340,632	373,896	658,476	604,980	754,925	.....	.....	.....
4,617,540	4,678,776	6,441,552	4,880,844	5,449,680	.....	.....	.....
7,668	18,900	10,152	1,944	7,560	.....	.....	.....
708,512	751,140	784,188	650,160	639,360	.....	.....	.....
45,576	25,696	28,676	31,428	32,400	.....	.....	.....
214,560	378,088	244,620	214,076	309,880	.....	.....	.....
21,700,080	22,142,160	26,693,280	22,472,120	27,172,800	25,124,807	23,582,968	.....

PORTUGAL—Continued.

Quantities and value of principal articles

Articles.		1873.	1874.	1875.	1876.	1877.
Animals, living:						
Cattle and hogs.....	{ number..	56, 084	60, 942	55, 484	61, 432	105, 910
	{ dollars...	918, 000	874, 800	783, 000	909, 880	1, 639, 440
Horses and mules.....	{ number..	2, 490	3, 048	3, 383	2, 513	2, 620
	{ dollars...	212, 760	155, 520	167, 400	131, 760	165, 846
Butter.....	{ pounds..	2, 119, 040	2, 017, 400	2, 236, 620	2, 370, 500	2, 670, 140
	{ dollars...	543, 240	583, 200	602, 640	570, 240	284, 040
Coal.....	{ tons.....	286, 427	204, 124	468, 445	459, 422	262, 582
	{ dollars...	1, 630, 800	523, 960	2, 687, 040	1, 301, 400	1, 629, 720
Codfish.....	{ pounds..	34, 566, 640	36, 753, 200	36, 744, 400	33, 875, 600	36, 867, 600
	{ dollars...	1, 577, 880	1, 325, 160	1, 483, 920	1, 463, 400	1, 512, 720
Cotton.....	{ pounds..	4, 331, 800	3, 608, 000	4, 582, 600	4, 490, 200	5, 888, 200
	{ dollars...	581, 040	531, 260	619, 920	552, 960	642, 600
Cotton manufactures and yarns, dollars.....		4, 763, 880	3, 090, 960	3, 009, 600	3, 427, 920	3, 408, 480
Grain:						
Wheat.....	{ bushels..	747, 850	804, 026	2, 524, 280	2, 891, 900	1, 518, 000
	{ dollars...	1, 067, 600	1, 253, 440	3, 585, 600	4, 136, 400	2, 169, 720
Maize.....	{ bushels..	367, 361	145, 475	623, 936	1, 902, 882	820, 521
	{ dollars...	245, 160	149, 040	724, 680	1, 858, 680	519, 120
Hides, raw and dried.....	{ pounds..	6, 680, 000	5, 789, 300	4, 874, 540	4, 896, 320	6, 094, 880
	{ dollars...	1, 202, 040	978, 480	737, 640	568, 080	856, 440
Linen and hemp manufactures, dollars.....			299, 160	873, 680	232, 800	322, 920
Machinery, industrial.....	{ dollars..	523, 800	493, 560	731, 180	977, 400	460, 080
Paper and manufactures.....	{ pounds..					
	{ dollars...	721, 440	429, 840	439, 560	387, 720	586, 440
Rice.....	{ pounds..	15, 639, 800	13, 567, 400	28, 327, 200	28, 116, 000	25, 755, 400
	{ dollars...	402, 000	348, 840	757, 080	708, 480	649, 080
Sugar, raw.....	{ pounds..	36, 260, 400	38, 083, 600	39, 875, 000	39, 212, 800	24, 644, 400
	{ dollars...	2, 049, 840	2, 187, 000	2, 022, 840	1, 848, 960	2, 412, 960
Wool.....	{ pounds..	5, 002, 800	4, 882, 400	5, 772, 800	3, 429, 800	3, 583, 800
	{ dollars...	709, 560	724, 680	902, 880	649, 080	979, 120
Wool manufactures.....	{ dollars..	1, 767, 960	1, 786, 320	2, 319, 840	2, 137, 320	2, 001, 340
All other articles.....	{ dollars..	17, 852, 680	15, 935, 184	16, 910, 640	15, 458, 680	14, 120, 680
TOTAL IMPORTS.....	{ dollars..	36, 769, 680	31, 072, 404	38, 949, 120	37, 320, 640	34, 537, 320

PORTUGAL—Continued.

imported and entered for home consumption.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
76,522 1,152,920	53,446 804,600	46,238 638,280	63,335 793,800	64,328 857,520	55,063 840,720	52,766 848,880	51,813 988,200
1,578 77,760	1,293 109,080	1,267 73,440	3,134 145,800	3,654 193,480	2,992 170,280	2,112 110,160	1,202 96,100
2,672,780 659,880	2,884,420 696,600	2,901,360 684,960	2,718,540 638,280	2,598,200 557,260	2,380,200 605,880	2,477,200 542,160	2,474,660 561,100
250,769 1,154,840	278,651 1,293,840	348,759 1,603,800	353,709 1,294,840	418,968 1,540,080	444,972 1,630,800	471,074 1,112,400	429,088 1,519,540
36,370,600 1,410,480	38,799,200 1,973,760	43,135,400 1,508,760	45,617,000 1,506,000	43,771,200 1,572,480	38,177,760 1,460,380	44,290,400 1,702,080	51,270,600 1,884,320
5,346,000 632,880	6,063,200 783,000	8,544,800 930,960	7,282,000 900,190	7,271,000 870,480	8,795,600 979,560	8,236,800 891,000	9,170,505 961,200
3,000,240	2,595,240	2,896,800	2,972,160	3,071,520	3,464,640	3,249,720	3,441,960
2,702,440 3,838,320	3,214,090 4,923,700	2,600,800 3,686,040	3,000,172 4,807,080	3,934,700 6,045,630	3,146,190 4,104,000	3,804,570 4,188,240	3,767,647 3,887,880
607,502 486,000	3,242,584 2,237,700	1,795,043 1,461,240	708,207 694,440	836,707 765,720	1,105,225 845,640	1,693,279 1,107,480	646,285 452,280
6,224,900 743,040	4,460,060 512,160	4,373,380 665,280	4,450,600 770,040	4,642,000 706,320	4,087,600 616,680	4,672,800 666,360	4,432,050 639,660
277,560 579,960	319,680 481,680	303,480 995,760	296,080 570,240	265,680 359,640	518,400	668,520	294,880 616,660
652,880	544,360	516,240	501,120	481,680	503,280	466,560	498,960
22,882,200 490,240	22,968,000 581,040	24,767,000 626,400	25,082,200 604,800	28,109,400 683,800	31,926,400 716,040	33,028,600 767,880	29,161,123 667,440
43,527,000 2,127,600	42,702,000 1,894,800	43,806,400 2,218,320	45,392,600 2,148,820	44,710,600 2,147,040	43,667,800 2,057,400	46,853,400 1,925,640	49,735,980 1,755,000
5,583,600 829,440	5,602,400 628,560	5,132,600 658,800	6,355,800 840,240	5,383,400 863,680	6,034,600 740,860	6,325,000 912,640	5,250,720 875,000
1,522,500 15,181,540	1,121,040 15,278,780	1,283,049 16,689,242	1,615,680 18,246,430	1,458,000 17,560,720	1,597,320 17,065,600	1,689,120 17,261,600	1,818,720 17,111,320
84,791,120	86,769,680	87,743,840	89,347,640	40,004,640	37,962,000	38,170,440	40,080,260

PORTUGAL.—Continued.

Quantities and values of

Articles.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Animals, living:					
Cattle and hogs { number ..	122, 625	76, 772	1, 009, 311	106, 407	160, 075
{ dollars ..	1, 754, 136	1, 304, 856	2, 209, 972	1, 570, 968	1, 694, 196
Horses and mules { number ..	1, 934	896	2, 218	798	1, 154
{ dollars ..	64, 692	28, 944	37, 908	26, 392	42, 768
Boots and shoes { pairs ..	.....	405, 861	433, 907	235, 600	207, 213
{ dollars ..	.....	195, 480	261, 360	192, 240	145, 040
Copper ore { tons ..	244, 220	184, 858	184, 852	67, 950	201, 826
{ dollars ..	2, 143, 800	1, 608, 768	1, 712, 448	605, 556	1, 805, 652
Cork, unwrought { pounds ..	36, 446, 080	40, 929, 400	48, 926, 460	35, 735, 720	31, 740, 500
{ dollars ..	1, 040, 904	1, 112, 568	863, 568	846, 036	1, 024, 592
Cork, manufactured { pounds ..	1, 845, 800	5, 103, 780	4, 954, 620	2, 549, 800	2, 169, 420
{ dollars ..	213, 840	253, 044	365, 148	199, 476	231, 660
Fish, sardines { pounds ..	15, 065, 920	9, 879, 980	10, 336, 920	9, 107, 840	.....
{ dollars ..	201, 636	167, 184	187, 704	154, 440	.....
All other { pounds ..	231, 442	7, 986, 000	7, 794, 600	9, 831, 800	15, 848, 800
{ dollars ..	20, 952	153, 360	181, 440	155, 520	320, 760
Fruit:					
Figs { pounds ..	26, 989, 600	15, 294, 400	7, 007, 000	17, 470, 200	10, 591, 100
{ dollars ..	508, 572	383, 400	173, 232	348, 040	152, 848
Oranges { number ..	236, 492, 000	319, 618, 000	297, 319, 000	551, 098, 000	240, 346, 000
{ dollars ..	214, 704	1, 006, 084	541, 728	601, 452	483, 516
Hides and skins { pounds ..	292, 600	1, 576, 300	494, 789	2, 148, 520	1, 760, 440
{ dollars ..	48, 924	140, 616	63, 504	183, 600	169, 992
Iron manufactures { pounds ..	.....	1, 742, 400	2, 598, 800	2, 215, 400	2, 316, 600
{ dollars ..	.....	106, 840	125, 280	110, 100	120, 360
Lees of wine { dollars ..	50, 976	52, 488	62, 208	56, 484	39, 528
Olive oil { gallons ..	1, 155, 100	639, 740	1, 140, 421	998, 298	329, 525
{ dollars ..	720, 856	393, 120	466, 020	513, 432	361, 044
Onions { pounds ..	22, 453, 860	.....	26, 492, 400	17, 669, 008	67, 726, 340
{ dollars ..	214, 704	235, 764	219, 568	191, 700	365, 904
Potatoes { pounds ..	.....	10, 687, 000	16, 608, 000	15, 114, 000	12, 856, 800
{ dollars ..	.....	201, 960	201, 960	220, 320	189, 000
Salt { tons ..	294, 787	465, 344	283, 233	270, 692	210, 801
{ dollars ..	393, 120	649, 620	304, 992	274, 752	237, 816
Wax { pounds ..	.....	2, 393, 600	.....	3, 473, 800	2, 270, 400
{ dollars ..	.....	703, 080	.....	862, 920	565, 920
Wine:					
Port { gallons ..	7, 548, 206	7, 568, 206	8, 566, 840	8, 313, 120	8, 090, 982
{ dollars ..	7, 662, 600	7, 548, 120	9, 770, 788	8, 410, 656	9, 228, 168
Madeira { gallons ..	195, 097	182, 990	221, 902	231, 519	403, 837
{ dollars ..	454, 460	425, 196	461, 592	476, 496	611, 604
Other { gallons ..	3, 196, 430	6, 289, 412	4, 619, 924	5, 417, 123	5, 992, 327
{ dollars ..	1, 393, 092	1, 967, 028	1, 792, 800	2, 172, 312	2, 460, 960
Total wine { dollars ..	9, 510, 152	9, 970, 344	12, 025, 180	11, 065, 464	12, 509, 732
Wool { pounds ..	2, 401, 540	1, 435, 260	1, 592, 360	1, 655, 280	2, 172, 720
{ dollars ..	413, 316	234, 360	241, 920	217, 620	271, 060
All other articles { dollars ..	7, 988, 916	5, 938, 100	6, 067, 400	6, 090, 948	5, 906, 572
TOTAL EXPORTS { dollars ..	25, 504, 200	24, 838, 920	26, 332, 560	24, 487, 920	26, 558, 960

PORTUGAL—Continued.

domestic produce exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
114,405	108,142	152,261	186,089	190,204	224,398	233,853	186,588
1,642,784	1,663,092	1,837,620	1,712,880	2,668,680	2,843,640	2,334,960	1,891,040
982	4,268	2,521	4,268	3,644	5,257	4,334	2,325
38,772	56,160	109,080	198,720	182,520	260,280	211,680	120,960
221,119	208,501	635,540	576,154	574,102	449,696	517,687	514,946
159,840	167,400	230,040	317,520	189,000	169,560	207,360	183,600
192,903	102,486	196,925	170,060	180,345	150,461	118,281	57,650
1,716,012	912,816	1,863,216	1,513,080	1,848,920	1,834,880	1,065,960	521,640
24,955,490	24,156,000	38,436,640	41,789,000	49,636,400	42,957,200	47,522,200	53,106,810
1,167,696	1,119,744	2,544,166	1,872,720	2,807,960	2,014,640	2,136,240	2,286,520
1,428,846	2,024,880	2,537,920	2,508,000	4,483,600	2,916,100	2,560,800	3,292,065
160,812	218,464	435,456	260,720	426,600	603,400	603,720	562,680
5,054,060	6,294,200	8,485,600	6,124,800	6,925,600	13,252,800	18,893,600	8,356,950
90,072	135,812	218,562	133,920	189,320	253,800	307,800	151,300
8,683,400	2,261,600	9,515,000	12,984,400	10,661,200	9,156,400	10,797,600	11,031,615
173,880	90,720	262,900	335,880	492,480	458,680	469,600	493,560
7,894,800	15,649,700	16,203,440	18,475,600	12,089,000	19,993,600	11,868,800	14,813,190
215,568	390,528	481,248	547,560	258,120	394,200	224,360	232,680
446,888,000	188,307,000	146,978,000	158,433,000	155,418,000	100,627,000	98,055,000	93,239,000
506,412	202,716	408,888	374,760	441,720	211,680	195,480	178,200
1,079,980	1,981,320	1,008,880	1,144,000	1,771,100	1,612,600	1,388,000	985,700
174,312	155,412	156,816	162,000	251,640	181,440	140,400	106,920
2,312,000	1,938,200	1,062,400	2,884,200	818,400	1,727,000	1,654,400	1,499,400
97,200	111,240	89,640	74,520	55,080	112,320	102,600	75,600
43,262	64,476	81,000	125,280	225,720	104,760	188,240	147,960
539,435	190,700	127,082	164,087	155,140	261,100	338,791	399,184
378,216	117,612	96,768	116,640	111,240	152,280	267,840	244,080
20,412,260	27,544,600	30,587,920	26,241,600	35,156,000	30,525,000	28,934,000	34,400,205
250,884	354,564	451,308	280,800	842,360	169,560	213,840	201,960
12,845,800	17,826,600	5,744,200	5,744,200	12,599,400	10,472,000	9,143,200	10,096,900
189,000	172,800	191,160	56,160	124,200	109,080	114,460	99,860
113,599	211,513	188,626	125,383	206,904	128,054	98,228	130,780
196,560	302,076	324,756	216,000	181,440	301,320	189,000	399,105
2,074,600	4,447,000	2,950,200	519,200	525,800	475,200	418,000	82,080
514,680	1,743,120	653,400	112,320	127,440	99,360	86,400	
6,923,156	6,880,968	8,820,768	7,850,947	8,890,620	9,297,252	8,784,577	9,189,635
5,919,372	5,547,852	7,060,392	6,410,880	6,118,200	6,705,720	6,528,000	6,534,000
163,125	269,189	356,191	341,671	406,214	339,722	425,868	497,828
351,864	462,760	654,264	675,000	842,400	608,040	652,660	723,600
4,138,068	3,991,965	6,485,585	10,340,132	11,750,625	13,348,748	12,457,726	29,610,551
1,547,964	1,648,836	2,633,064	8,505,680	4,011,120	4,338,360	4,338,360	8,792,260
7,819,200	7,679,448	10,347,720	10,591,360	10,971,720	11,876,520	11,519,820	16,049,880
1,935,120	1,589,060	2,665,740	1,339,800	1,687,400	1,760,000	1,280,400	1,514,835
240,192	180,468	411,696	213,840	238,680	219,240	144,720	180,920
5,932,332	6,303,472	5,477,760	3,155,240	6,087,960	3,415,080	2,928,420	3,468,380
21,709,080	22,142,160	26,693,280	22,472,120	27,172,800	25,119,720	23,613,120	26,973,000

RUSSIA IN EUROPE.

Value of imports from

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Germany	128, 183, 180	132, 656, 554	162, 671, 458	145, 122, 076	108, 978, 448
United Kingdom	99, 225, 968	94, 219, 176	98, 138, 736	76, 654, 556	68, 123, 274
Austria-Hungary	15, 327, 505	15, 198, 938	18, 951, 146	17, 352, 494	14, 647, 704
France	19, 895, 026	14, 481, 086	24, 428, 254	13, 198, 788	7, 453, 036
Turkey	11, 587, 847	9, 342, 352	11, 231, 668	16, 148, 000	3, 264, 832
Italy	8, 648, 442	8, 062, 256	8, 147, 400	5, 775, 112	4, 771, 734
United States	12, 690, 606	7, 727, 552	5, 954, 942	8, 429, 256	5, 027, 900
Holland	4, 097, 727	7, 090, 440	9, 028, 200	5, 037, 442	4, 678, 378
Belgium	3, 610, 013	3, 917, 858	3, 711, 838	4, 779, 366	3, 522, 466
Norway and Sweden	2, 306, 611	2, 203, 468	2, 342, 194	2, 048, 594	1, 482, 680
Roumania	2, 994, 196	1, 823, 522	1, 305, 334	2, 293, 016	834, 555
Greece	1, 916, 131	1, 826, 192	1, 728, 570	1, 040, 812	713, 448
South America	530, 158	11, 878, 322	14, 620, 546	413, 242	7, 490, 188
All other countries	10, 489, 126	10, 564, 196	13, 687, 714	10, 364, 522	2, 169, 707
TOTAL IMPORTS	321, 002, 506	320, 991, 412	375, 918, 100	308, 657, 276	233, 063, 350

Value of exports to

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom	100, 684, 437	105, 307, 725	95, 977, 106	97, 105, 998	108, 964, 502
Germany	85, 393, 077	105, 307, 734	80, 598, 338	83, 445, 532	144, 400, 554
France	20, 512, 156	25, 684, 512	27, 568, 306	22, 014, 862	17, 040, 222
Austria	19, 785, 528	25, 963, 455	12, 209, 356	19, 594, 130	38, 567, 880
Holland	14, 347, 305	14, 628, 479	13, 511, 472	18, 212, 068	28, 439, 564
Belgium	7, 128, 198	7, 696, 144	8, 508, 528	8, 520, 272	9, 668, 046
Turkey	3, 480, 960	3, 404, 809	7, 702, 596	5, 151, 946	2, 531, 566
Norway and Sweden	5, 017, 089	9, 259, 517	6, 432, 776	6, 631, 690	14, 687, 340
Italy	5, 474, 742	6, 757, 269	4, 840, 730	4, 512, 632	1, 503, 232
Roumania	1, 096, 347	1, 417, 248	1, 240, 460	1, 406, 344	2, 519, 088
Greece	894, 716	1, 101, 786	1, 125, 956	1, 056, 960	373, 606
Denmark	3, 616, 158	5, 128, 977	2, 262, 252	3, 998, 098	4, 879, 632
All other countries	1, 801, 730	894, 713	2, 703, 258	1, 724, 900	905, 756
TOTAL EXPORTS	268, 732, 443	317, 331, 529	264, 681, 134	278, 375, 372	378, 078, 988

RUSSIA IN EUROPE.

principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
193, 138, 154	199, 614, 272	183, 185, 292	144, 695, 516	140, 936, 362	109, 653, 700	113, 415, 510	91, 528, 840
118, 736, 978	109, 425, 668	100, 674, 465	71, 354, 178	82, 033, 518	86, 698, 050	79, 411, 110	60, 071, 148
19, 660, 930	14, 912, 128	15, 432, 492	15, 180, 718	19, 695, 914	16, 804, 450	13, 229, 595	13, 796, 112
14, 881, 382	15, 136, 528	13, 929, 918	12, 861, 268	13, 103, 412	15, 142, 400	12, 055, 695	8, 777, 436
5, 064, 302	10, 626, 836	12, 749, 802	14, 737, 226	13, 463, 996	8, 554, 650	8, 908, 740	7, 456, 464
7, 041, 996	8, 930, 372	4, 220, 052	6, 273, 940	6, 150, 326	7, 658, 807	7, 582, 620	4, 116, 192
8, 400, 630	4, 804, 404	6, 826, 476	12, 051, 270	22, 720, 082	(*)	(*)	(*)
6, 063, 574	6, 416, 344	5, 030, 211	3, 116, 946	6, 504, 330	4, 834, 700	3, 958, 365	3, 193, 336
4, 239, 584	5, 395, 324	4, 965, 987	18, 221, 336	7, 942, 060	6, 553, 950	6, 191, 355	5, 183, 400
2, 229, 158	2, 632, 960	1, 956, 828	4, 090, 786	4, 365, 172	4, 171, 050	3, 897, 230	3, 316, 104
579, 860	1, 407, 786	1, 194, 874	621, 810	1, 316, 000	1, 263, 600	1, 440, 930	1, 871, 748
1, 885, 646	2, 368, 916	1, 484, 511	1, 689, 086	1, 250, 200	1, 179, 725	1, 095, 210	525, 396
27, 009, 732	24, 396, 020	10, 685, 937	9, 675, 890	(*)	(*)	(*)	(*)
5, 068, 550	6, 326, 584	12, 365, 237	13, 772, 030	22, 382, 528	71, 071, 925	62, 490, 050	41, 713, 484
414, 940, 476	412, 894, 092	374, 652, 042	328, 342, 000	341, 863, 900	333, 586, 500	313, 676, 400	241, 549, 620

principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
140, 272, 538	137, 902, 576	99, 145, 800	102, 513, 110	138, 245, 142	136, 580, 600	98, 112, 885	97, 938, 912
128, 715, 688	139, 596, 668	92, 403, 618	97, 963, 698	117, 136, 502	122, 749, 250	117, 981, 465	90, 476, 088
60, 727, 490	61, 827, 480	35, 620, 905	35, 191, 814	38, 723, 158	25, 584, 600	25, 337, 535	21, 518, 424
29, 572, 126	24, 582, 820	21, 773, 943	18, 493, 090	21, 916, 006	16, 163, 500	19, 919, 535	17, 257, 890
23, 735, 358	28, 960, 512	18, 869, 145	18, 679, 962	19, 478, 774	30, 214, 600	30, 363, 235	20, 668, 092
11, 062, 848	20, 027, 148	12, 643, 431	15, 697, 906	19, 118, 848	28, 263, 200	14, 768, 245	14, 744, 388
11, 572, 344	9, 192, 920	9, 087, 696	6, 273, 372	9, 175, 810	5, 970, 900	5, 305, 770	7, 902, 936
10, 336, 922	9, 124, 104	8, 111, 625	8, 743, 504	7, 963, 514	12, 331, 450	11, 871, 225	11, 944, 716
10, 864, 668	9, 139, 064	3, 288, 897	3, 105, 102	5, 794, 348	4, 458, 350	12, 035, 300	16, 225, 632
3, 365, 390	6, 769, 400	6, 060, 564	5, 336, 380	4, 522, 434	3, 438, 350	5, 091, 630	2, 432, 064
1, 923, 282	1, 608, 200	1, 479, 159	1, 278, 494	2, 970, 212	3, 367, 000	3, 169, 175	5, 711, 916
4, 215, 062	3, 894, 068	3, 857, 454	1, 568, 014	2, 277, 338	.....	.....	.....
1, 498, 414	952, 712	5, 145, 948	1, 895, 039	6, 353, 648	10, 848, 750	11, 124, 725	9, 672, 628
437, 864, 080	453, 597, 672	318, 688, 185	316, 739, 486	388, 695, 794	395, 061, 550	355, 075, 725	316, 693, 656

* Entered with "All other countries."

RUSSIA IN EUROPE—Continued.

Quantities and values of

Articles.	1873.	1874.	1875.	1876.	1877.
Agricultural machinery dollars	1,169,897	2,167,705	2,276,134	1,415,152	947,504
Books, maps, &c. dollars	2,185,454	2,235,615	2,377,514	2,891,226	3,846,160
Chemicals and drugs dollars	8,412,752	7,498,609	10,132,186	4,770,266	3,852,766
Coal and coke { tons	915,378	1,139,106	1,142,838	1,645,640	1,623,621
..... { dollars	8,174,618	6,905,172	6,389,746	8,929,844	9,534,660
Coffee { pounds	14,754,920	14,870,340	16,526,156	18,021,204	10,333,868
..... { dollars	3,884,738	4,179,577	4,138,292	4,122,878	2,356,874
Cotton, raw { pounds	122,171,220	160,371,288	179,304,732	149,782,710	132,251,976
..... { dollars	28,985,523	41,643,250	38,536,468	28,162,112	25,930,752
Cotton manufactures dollars	5,051,482	4,717,402	4,539,056	3,805,056	1,531,858
Cotton yarn dollars	10,528,303	10,399,429	11,227,264	10,622,448	4,394,458
Dresses, ready made dollars	1,550,423	1,663,849	1,828,394	1,382,398	971,816
Engines and machinery dollars	14,004,812	13,324,172	23,360,284	14,022,336	14,050,092
Fish, herrings in barrels { barrels	359,355	430,430	432,532	364,084	241,878
..... { dollars	3,279,725	3,961,808	3,563,888	3,660,458	1,728,570
Fruit and vegetables dollars	8,086,873	7,537,194	7,585,244	9,077,378	4,129,484
Furs dollars	2,391,498	3,052,073	3,552,560	3,080,874	1,981,066
Glass and glassware dollars	2,319,730	2,339,704	2,566,064	2,352,652	846,126
Indigo { pounds	1,501,920	1,978,156	1,664,640	1,529,316	1,292,792
..... { dollars	3,923,323	4,687,145	3,525,402	3,438,056	3,576,448
Iron:					
Unwrought dollars	1,102,750	1,206,167	1,790,226	1,332,944	1,357,900
Wrought dollars	8,646,898	7,520,988	5,320,032	5,130,000	3,322,384
Rails { tons	128,145	94,049	63,387	18,574	18,376
..... { dollars	7,352,758	4,478,175	2,965,890	1,456,256	684,152
Steel rails { tons	35,119	102,364	121,583	174,167	187,598
..... { dollars	4,139,399	11,777,685	11,218,456	18,829,440	18,693,324
Lead { tons	16,583	18,740	16,531	26,965	20,176
..... { dollars	1,828,929	2,263,396	1,506,168	3,178,220	2,290,814
Lace dollars	1,502,500	1,666,068	1,414,418	998,496	459,484
Lime and cement dollars	1,331,182	1,918,068	2,043,456	1,561,218	871,992
Linen manufactures dollars	4,433,416	5,867,235	4,109,654	3,954,792	3,749,272
Metal wares dollars	23,423,410	20,775,707	20,668,148	19,161,616	12,020,396
Oils:					
Petroleum, &c dollars	7,959,314	6,188,262	5,571,060	6,721,972	4,213,894
Other than mineral dollars	9,883,934	17,376,401	9,120,684	8,404,300	6,378,460
Plants and seeds dollars	748,549	939,931	1,086,320	1,502,495	1,567,454
Railroad rolling-stock dollars	2,216,323	1,647,579	3,752,942	806,666	1,032,556
Rice dollars	1,487,066	1,398,320	1,236,258	1,272,022	481,504
Salt, table { tons	223,327	213,628	212,871	310,860	111,255
..... { dollars	5,689,744	5,565,500	5,074,142	6,130,368	2,824,960
Silk, raw { pounds	541,080	573,560	657,912	578,736	368,002
..... { dollars	6,214,500	5,817,846	6,875,378	5,838,970	2,375,958
Silk manufactures dollars	4,890,211	4,368,594	4,891,376	3,360,980	1,282,298
Sugar, raw { pounds	4,315,320	12,304,756	51,438,240	14,551,128	39,672
..... { dollars	679,707	1,872,916	5,096,708	1,203,026	8,670
Tea { pounds	25,353,408	25,855,244	28,578,356	33,947,036	18,441,896
..... { dollars	25,425,972	24,229,837	28,834,602	28,901,250	11,836,484
Tobacco in leaves and stalks dollars	3,436,380	5,360,228	5,643,726	12,911,794	928,372
Watches and clocks dollars	4,031,861	4,396,374	3,738,858	2,252,646	1,267,436
Wine:					
In casks dollars	7,990,980	8,546,577	6,036,274	9,837,068	1,984,090
Champagne { bottles	1,191,940	1,159,363	1,120,552	1,570,914	189,297
..... { dollars	2,528,861	2,392,270	1,951,706	2,479,802	849,384
Wool, raw { pounds	16,935,876	19,298,052	23,347,152	16,111,212	12,786,552
..... { dollars	10,254,350	12,662,055	14,514,850	9,340,150	8,425,680
Woolen goods dollars	9,871,586	10,332,291	11,832,080	9,274,090	4,797,424
TOTAL IMPORTS dollars	318,307,729	339,666,070	366,182,324	325,007,126	213,932,374

RUSSIA IN EUROPE—Continued.

principal articles imported.

1878.	1879.	1880.	1881.	1881.	1883.	1884.	1885.
2,172,484	2,991,252	3,680,838	5,209,784	3,898,650	3,651,050	3,730,680	1,544,208
2,955,084	3,824,524	2,641,119	3,114,154	3,218,936	3,015,359	3,068,910	1,780,800
19,551,858	17,262,092	12,391,218	11,872,294	17,046,786	9,959,300	9,578,315	8,709,494
2,000,101	1,631,266	2,221,421	1,906,933	1,900,334	2,469,580	2,101,680	2,007,036
13,170,768	9,615,540	11,757,745	9,704,158	10,183,640	11,789,050	10,290,975	9,828,436
16,102,116	17,008,128	18,001,224	15,279,516	18,819,572	18,932,000	18,216,000	16,920,000
4,187,470	5,116,380	4,769,301	4,018,386	4,497,408	4,251,650	5,559,255	4,719,120
227,895,588	205,954,398	175,917,584	297,983,088	241,567,200	291,240,000	225,972,000	229,608,000
49,837,132	44,861,013	34,755,219	65,600,342	47,450,306	61,011,600	49,133,520	41,955,012
3,338,966	4,473,040	4,082,063	3,098,406	3,583,468	2,528,500	2,189,775	1,899,372
12,283,692	22,758,744	13,905,165	9,393,408	10,017,392	6,817,200	5,509,590	4,914,900
2,003,820	1,596,238	1,673,169	1,815,342	1,268,624	1,825,850	2,038,200	2,013,676
31,707,332	22,068,944	29,960,904	9,958,172	13,169,212	12,822,850	10,867,605	7,562,568
427,279	336,504		607,670	244,584			
3,940,112	3,257,016	4,216,088	4,488,876	2,021,834	4,468,750	5,575,380	3,820,828
7,328,256	7,796,256	6,972,818	6,925,450	7,943,834	7,696,000	7,065,175	6,427,416
4,064,168	3,542,544	2,716,899	2,243,122	3,535,833	5,231,201	4,540,155	2,591,004
2,064,008	2,829,212	2,780,998	1,859,108	2,189,824	1,918,185	1,778,265	1,728,012
1,698,156	1,754,028	1,822,712	1,976,400	1,632,024	1,548,000	1,620,000	
3,730,922	3,633,112	2,741,562	4,082,890	3,789,396	3,655,600	4,067,370	3,150,108
3,311,900	5,096,878	6,037,795	6,053,600	6,354,286	6,256,900	7,232,385	5,551,644
5,268,592	14,526,620	11,439,900	7,869,680	8,700,734	9,124,456	6,687,360	5,547,776
6,262	1,904	5,085	1,099	992	687	198	606
315,620	175,038	819,782	99,358	102,648	70,850	19,350	29,992
169,613	84,460	55,729	14,765	5,152	1,383	2,328	2,250
16,020,284	8,168,908	4,622,111	1,089,648	540,876	158,600	206,400	131,652
22,587	21,210	18,079	20,005	17,252	20,153	19,873	12,024
2,742,958	2,728,520	1,972,881	1,892,846	1,531,146	1,554,150	1,509,800	1,102,188
1,074,576	1,142,196	900,474	770,818	1,223,880	1,004,900	855,270	694,876
1,407,812	1,683,464	2,057,175	662,586	1,108,072	1,238,900	1,951,125	1,272,636
6,670,592	5,844,878	4,983,875	3,732,634	2,569,100	1,896,700	2,465,835	2,641,944
19,846,636	15,890,578	12,653,466	10,586,864				
5,220,208	3,719,820	2,724,168	2,531,306	1,218,028	796,900	476,010	247,404
10,224,620	11,301,532	9,785,957	8,093,400	9,867,288	10,895,950	9,879,465	6,940,668
1,566,356	1,650,984	1,618,311	1,583,148	2,116,760	2,575,300	2,797,430	4,216,680
6,223,128	103,972	351,225	57,904	25,004	15,600	2,580	23,532
1,203,760	1,544,540	2,353,542	1,838,406	1,934,520	1,942,850	2,026,850	1,563,288
181,029	178,940	163,076	204,638	185,238	175,622	95,940	47,664
4,657,961	4,900,148	4,121,709	4,070,882	4,891,950	2,508,800	2,089,380	712,320
982,800	1,232,064	1,105,632	928,206	921,456	945,100	945,000	1,008,000
8,739,004	10,519,140	7,875,725	7,150,466	6,037,294	6,936,150	6,437,745	4,508,604
2,235,764	2,342,736	2,833,472	1,485,764	1,452,864	1,440,400	1,448,670	1,249,740
22,320	20,880		35,532	1,161,936	1,761,000	18,000	36,000
1,468	2,543	4,683	3,029	116,924	238,550	2,580	8,816
26,694,828	30,805,236	41,278,392	22,511,844	30,069,080	32,652,000	25,604,000	27,681,000
26,141,410	30,414,588	42,580,512	24,505,780	31,663,878	33,405,500	36,699,210	18,599,184
3,068,854	3,175,276	5,788,857	2,827,406	3,443,972	2,861,300	2,745,765	2,497,480
3,730,922	4,312,220	3,199,158	4,237,520	3,390,674	2,865,700	2,441,970	1,485,696
5,469,034	7,330,916	9,992,184	0,460,902	7,330,120	9,433,550	10,145,560	4,389,672
562,464	749,639	1,109,369	369,691	572,647	612,000	609,000	437,000
876,371	1,619,425	2,065,203	901,918	1,618,680	1,591,200	1,588,635	1,390,932
28,406,910	33,448,572	29,583,144	26,915,088	29,084,970	21,960,000	18,106,800	22,536,000
17,973,458	22,211,118	16,826,945	15,826,216	18,893,766	14,580,150	12,001,515	13,617,112
7,733,434	9,216,108	8,096,907	5,051,838	5,896,338	4,238,000	4,171,215	2,943,408
406,362,810	410,062,516	386,905,446	313,296,172	341,082,854	333,910,200	313,630,605	242,572,308

RUSSIA IN EUROPE—Continued.

Quantities and values of the

Articles.	1873.	1874.	1875.	1876.	1877.
Animals, living (except horses).....	dollars.. 8,238,314	5,915,008	7,069,016	8,636,244	11,541,416
Brandy and corn spirits.....	dollars.. 2,101,081	5,394,583	3,217,856	1,728,570	3,247,950
Bristles.....	pounds.. 4,339,024	3,654,936	4,821,578	4,131,108	5,034,096
Butter.....	pounds.. 2,074,062	2,293,396	3,034,356	2,007,168	2,592,438
Butter.....	pounds.. 4,085,300	5,624,820	5,869,836	5,537,096	6,683,808
Butter.....	dollars.. 793,925	1,063,955	1,146,508	1,124,356	1,159,720
Caviar.....	pounds.. 5,552,064	3,851,604	3,488,508	3,322,764	2,072,484
Caviar.....	dollars.. 989,901	852,728	772,168	722,226	733,468
Cereals:					
Wheat.....	busbels.. 41,742,984	48,737,794	57,171,498	55,620,906	51,949,506
Wheat.....	dollars.. 62,119,535	66,207,218	72,861,973	74,713,860	76,053,088
Wheat.....	busbels.. 44,335,092	58,246,038	34,265,826	48,428,598	50,984,362
Rye.....	dollars.. 38,071,852	57,551,842	29,463,494	41,990,672	61,677,286
Rye.....	busbels.. 6,964,902	13,048,824	8,797,718	8,838,024	12,816,744
Barley.....	dollars.. 5,561,642	10,586,502	6,451,126	6,637,562	11,200,252
Oats.....	busbels.. 23,687,640	32,220,702	29,402,514	31,390,528	45,726,540
Oats.....	dollars.. 11,061,789	19,283,847	17,264,414	18,311,098	28,790,416
Maize.....	busbels.. 3,803,940	808,956	724,164	2,260,800	3,012,360
Maize.....	dollars.. 3,224,934	742,375	894,540	1,296,244	2,016,296
Peas.....	busbels.. 1,040,262	2,180,100	1,057,032	646,416	1,814,354
Peas.....	dollars.. 1,082,566	2,585,516	1,159,720	685,556	1,832,798
Groats.....	busbels.. 2,646,666	1,470,294	*10,488,740	2,075,580	2,888,388
Groats.....	dollars.. 2,746,709	1,518,706	2,447,156	2,424,402	5,783,950
Total cereals.....	busbels.. 124,221,486	156,712,618	142,087,490	140,250,846	178,192,334
Total cereals.....	dollars.. 123,819,117	158,455,006	130,042,424	140,059,394	167,954,088
Flour.....	dollars.. 2,240,338	3,904,030	3,077,602	2,681,302	5,574,730
Flour.....	tons.. 162,747	179,801	170,619	147,791	201,753
Flax.....	dollars.. 31,446,862	37,270,023	33,970,254	24,112,634	46,374,120
Flax.....	tons.. 10,980	12,448	11,869	28,754	29,198
Tow.....	dollars.. 1,364,366	1,575,040	1,506,902	3,430,823	3,071,056
Tow.....	pounds.. 7,769,898	5,216,464	5,216,464	1,597,052	1,727,676
Tow.....	dollars.. 4,240,491	2,800,499	181,098	171,756	244,422
Yarn.....	pounds.. 1,881,428	839,196	1,108,476	1,612,080	1,844,244
Yarn.....	dollars.. 1,646,579	1,184,331	1,879,040	1,945,100	1,243,896
Yarn.....	tons.. 67,978	68,564	48,074	48,074	61,063
Hemp.....	dollars.. 8,635,323	10,159,751	8,573,854	6,862,169	11,262,778
Hemp.....	pounds.. 6,517,944	5,264,186	8,006,796	9,490,812	9,449,608
Hemp.....	dollars.. 512,408	1,842,755	761,892	1,117,148	997,506
Horses.....	number.. 18,986	24,711	33,343	42,195	370
Horses.....	dollars.. 1,309,585	1,470,860	1,550,942	2,099,240	26,424
Leather.....	pounds.. 12,570,588	9,593,568	8,329,608	7,854,768	10,695,276
Leather.....	dollars.. 2,819,241	2,445,099	2,188,876	2,119,792	2,839,258
Linseed.....	tons.. 43,739	51,318	45,959	38,277	80,677
Linseed.....	dollars.. 21,389,209	23,555,866	21,062,864	17,472,870	16,677,948
Other oleaginous seeds.....	tons.. 4,174	6,068	7,789	5,690	3,476
Other oleaginous seeds.....	dollars.. 1,544,204	2,819,823	2,103,644	1,514,976	1,383,590
Metals, unwrought.....	tons.. 19,589	8,673	8,378	17,653	4,248
Metals, unwrought.....	dollars.. 1,805,038	1,450,024	1,094,952	703,906	527,746
Sugar, raw.....	pounds..			17,856,000	129,924,000
Sugar, raw.....	dollars..			1,479,010	10,970,566
Sugar, refined.....	pounds..			121,032	10,169,460
Sugar, refined.....	dollars..			13,873	1,033,472
Tallow.....	tons.. 14,129	9,264	7,408	12,003	19,993
Tallow.....	dollars.. 2,905,980	2,080,503	1,448,916	2,318,706	4,464,922
Wood, of all sorts.....	dollars.. 23,122,885	28,785,305	19,983,884	22,779,690	23,000,624
Wool.....	pounds.. 24,414,588	37,941,096	31,685,528	42,468,768	48,228,532
Wool.....	dollars.. 5,751,390	8,754,197	6,348,396	8,774,236	16,422,516
TOTAL EXPORTS.....	dollars.. 268,732,443	317,331,529	264,681,134	278,375,372	373,078,988

*As given in the official returns.

RUSSIA IN EUROPE—Continued.

exports to the principal articles.

1873.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
12,326,002	10,881,156	9,029,498	6,597,108	9,779,854	7,988,500	6,667,365	7,230,048
1,607,460	3,504,380	2,572,974	1,081,752	3,960,702	6,652,750	3,785,505	5,024,400
5,075,388	4,152,006	4,715,748	4,444,560	4,732,884	4,220,000	5,858,000	4,932,000
3,338,232	2,505,052	2,953,635	2,677,602	3,868,582	3,381,900	3,288,855	3,510,720
6,267,960	7,162,308	6,751,836	5,609,786	7,736,652	10,440,000	7,560,000	8,172,000
1,136,906	1,400,256	1,090,151	1,044,246	1,398,906	2,221,700	1,762,140	1,257,372
4,495,572	7,262,856	6,668,028	6,272,820	8,096,976	9,036,000	14,184,000	5,580,000
1,227,982	1,408,240	1,443,702	1,469,814	2,365,536	2,047,500	2,203,320	950,184
102,596,664	83,581,280	86,781,782	49,834,882	70,937,742	84,396,000	67,220,000	89,198,480
150,090,522	138,909,584	59,580,471	78,569,790	109,408,832	110,628,100	88,806,140	92,010,756
60,065,976	72,125,736	25,804,464	25,549,632	83,896,338	46,062,000	45,972,000	46,967,800
55,951,258	71,987,748	48,614,117	81,616,900	83,814,162	44,101,600	42,728,510	37,089,612
27,336,756	17,289,422	10,463,040	15,512,232	20,394,042	28,896,000	25,446,000	25,935,050
19,810,460	18,610,608	9,125,829	10,967,544	16,844,136	21,833,500	18,692,100	16,840,852
45,778,368	46,770,888	43,178,034	39,053,166	56,360,778	60,174,000	60,882,000	36,264,450
28,204,684	29,830,210	24,515,505	27,161,782	30,975,300	33,871,500	34,038,585	18,846,588
5,989,878	9,360,352	8,502,354	8,152,950	9,880,584	6,664,000	10,284,000	5,210,810
3,093,810	5,838,888	6,963,580	4,223,044	9,452,828	5,673,200	9,309,285	3,896,808
1,323,482	1,174,470	925,098	777,258	2,675,918	2,298,000	1,944,000	1,707,920
1,463,596	1,152,668	970,050	801,444	2,628,970	2,457,650	1,985,955	1,686,672
3,701,634	3,491,256	1,900,812	1,545,120	1,878,600	1,488,000	1,620,000	577,000
4,577,958	4,184,944	2,499,384	2,468,816	2,703,922	1,865,000	2,218,300	740,940
247,841,758	238,733,404	137,555,604	139,924,740	202,025,999	230,000,000	218,368,000	205,860,960
263,192,482	265,464,680	147,258,942	155,809,820	205,913,150	223,067,400	192,774,375	170,112,228
3,844,692	8,119,180	2,756,280	1,942,070	3,343,956	2,713,100	4,087,265	5,178,848
175,312	202,607	172,653	233,581	218,394	196,956	199,998	168,226
41,484,946	52,118,160	37,176,330	46,117,214	43,089,788	36,910,025	37,871,870	29,990,580
23,054	23,071	27,550	33,414	27,114	26,766	30,564	34,398
3,043,898	3,300,924	3,514,926	4,566,322	3,555,174	3,631,300	3,918,375	3,702,156
424,908	213,024	520,632	142,884	297,432	.....	.....	.....
60,922	28,424	63,555	22,372	67,342	.....	.....	.....
1,383,968	2,261,340	2,887,740	3,264,588	2,847,600	2,952,000	3,712,000	4,428,000
825,016	1,863,268	2,182,947	5,496,274	2,728,726	2,096,900	2,441,325	1,174,692
54,616	66,384	68,896	85,825	67,618	67,410	51,818	55,008
11,540,318	13,522,344	11,729,577	11,481,642	11,175,732	11,486,150	8,870,040	8,220,300
11,442,780	7,985,445	6,500,300	10,717,704	7,764,836	11,016,000	5,070,000	4,032,000
1,290,180	653,004	1,010,859	853,452	1,606,152	1,539,000	802,380	302,786
15,648	32,970	22,331	23,577	39,295	45,000	40,000	33,500
844,100	1,740,596	1,054,344	1,099,518	1,796,334	2,345,850	2,200,740	1,745,184
7,475,768	8,935,236	13,755,528	13,384,188	15,209,172	15,588,000	11,808,000	11,772,000
2,075,018	2,680,636	2,922,801	2,895,120	2,718,856	3,198,150	2,593,480	2,427,612
46,312	51,395	44,732	42,623	53,642	40,518	30,060	13,320
26,365,260	30,724,848	24,938,313	21,238,266	24,574,326	19,383,650	9,653,400	5,531,928
16,491	12,344	13,771	10,000	10,993	8,262	6,174	5,670
6,470,210	5,806,220	5,020,845	3,916,018	3,763,302	2,986,750	2,258,790	1,709,668
5,066	12,263	150,595	3,264	8,670	3,378	3,526	3,492
497,682	768,708	5,571,432	537,586	2,079,280	664,950	785,680	1,859,768
7,700,400	5,196,400	.....	49,392	15,012	.....	.....	45,648,000
743,542	401,010	.....	3,180	1,816	.....	.....	3,219,432
1,935,136	555,648	4,689,936	1,779,984	3,406,500	268,000	1,224,000	101,124,000
237,876	70,761	382,668	170,422	384,272	48,550	149,705	8,642,808
11,144	6,609	7,629	5,128	6,845	4,158	3,672	3,330
1,456,698	1,400,844	1,551,411	963,970	1,437,072	915,850	786,255	555,228
22,353,236	18,679,668	21,674,282	19,699,830	23,058,952	24,661,650	22,673,685	14,849,964
39,381,804	34,334,848	51,892,416	36,580,832	43,528,424	66,960,000	60,264,000	51,588,000
8,779,374	8,180,876	9,137,871	7,362,562	8,168,584	10,195,250	7,741,935	7,683,908
437,864,080	453,697,672	318,688,185	316,739,486	388,605,784	395,061,550	355,133,776	316,248,456

SPAIN.

Value of imports from the principal

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	367,086	916,578	1,290,012	948,858	641,918
Sweden and Norway.....	2,926,266	8,011,958	3,289,106	3,083,168	2,985,266
Belgium.....	1,793,742	2,030,553	3,028,170	3,410,117	4,582,785
Germany.....	870,807	1,140,487	673,184	1,411,795	2,764,532
United Kingdom.....	41,709,087	84,749,071	87,573,819	27,695,500	32,452,950
France.....	19,163,356	28,362,315	28,929,349	31,581,362	27,381,489
Portugal.....	8,817,540	1,240,797	871,974	853,832	999,161
Italy.....	1,720,402	2,266,592	1,770,003	3,145,180	2,459,013
Turkey in Europe.....	1,524,121	1,828,419	2,304,227	383,491	18,914
Algeria.....	558,261	968,281	1,325,717	1,982,089	1,506,172
Gibraltar.....	528,241	1,509,646	1,803,199	1,485,135	991,248
United States.....	9,376,182	13,472,944	11,722,048	11,525,188	11,807,740
Brazil.....	964,421	1,612,515	1,031,585	1,174,984	871,395
Argentine Republic.....	2,454,381	1,580,863	2,022,061	1,579,898	695,186
Peru.....	1,494,388	1,439,200	814,207	2,817,737	1,531,455
Cuba.....	7,636,045	9,818,286	5,377,945	7,382,842	5,141,134
Porto Rico.....	866,956	785,817	851,323	1,128,085	670,675
Philippine Islands.....	1,705,541	1,394,039	1,844,887	1,850,677	2,156,003
All other.....	8,211,815	2,791,156	3,544,445	3,966,298	4,246,058
TOTAL IMPORTS	102,688,388	110,418,967	110,067,321	106,854,836	103,903,094

Value of exports to principal coun-

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	1,308,566	1,810,919	424,793	493,115	448,918
Sweden and Norway.....	870,816	501,414	880,017	687,852	699,432
Belgium.....	1,694,540	1,439,780	1,028,690	1,703,032	1,818,631
Germany.....	2,044,642	1,687,013	1,098,170	1,515,629	1,186,371
United Kingdom.....	44,449,637	31,838,420	30,189,060	34,388,161	40,482,908
France.....	23,812,919	20,164,833	14,204,028	17,546,981	17,492,160
Portugal.....	8,666,472	6,130,825	7,739,879	8,827,769	6,875,046
Italy.....	1,301,592	529,013	733,207	868,693	712,363
Algeria.....	1,352,544	1,140,437	1,186,757	1,569,862	1,225,550
Gibraltar.....	868,500	894,685	298,957	240,285	260,429
United States.....	4,339,026	3,929,220	2,997,290	2,324,878	3,035,504
Brazil.....	574,175	565,297	657,165	174,472	350,366
Argentine Republic.....	2,979,534	8,166,937	4,035,437	1,968,179	2,767,983
Cuba.....	13,052,783	11,688,650	16,560,751	13,537,965	15,774,083
Porto Rico.....	1,102,030	958,824	1,023,286	961,719	1,440,369
Uruguay.....	1,178,651	1,596,882	1,742,983	1,196,021	1,373,860
Philippine Islands.....	296,448	318,643	616,828	474,201	800,178
All other.....	3,622,391	2,170,436	2,332,695	2,470,435	2,824,478
TOTAL EXPORTS	113,515,266	90,027,745	87,249,993	85,949,269	99,578,718

SPAIN.

countries, bullion and specie included.

1878.	1870.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 3, 224, 644	<i>Dollars.</i> 2, 318, 284	<i>Dollars.</i> 915, 692	<i>Dollars.</i> 1, 176, 528	<i>Dollars.</i> 4, 144, 552	<i>Dollars.</i> 4, 858, 389	<i>Dollars.</i> 3, 462, 909	<i>Dollars.</i>
3, 076, 034	3, 241, 242	3, 642, 682	4, 129, 814	4, 715, 955	4, 978, 628	4, 850, 933	.....
4, 684, 882	4, 324, 358	3, 633, 997	5, 250, 478	6, 236, 481	7, 387, 461	7, 543, 528	.....
2, 472, 909	5, 458, 619	8, 221, 908	9, 909, 392	15, 969, 200	17, 112, 345	17, 115, 047	.....
27, 328, 828	27, 480, 777	26, 069, 001	26, 101, 766	32, 974, 243	36, 003, 185	31, 629, 419	.....
33, 423, 354	32, 738, 500	52, 196, 464	39, 940, 578	42, 629, 454	45, 344, 385	37, 033, 612	.....
1, 160, 106	1, 263, 185	2, 348, 617	1, 917, 841	1, 083, 309	1, 142, 174	1, 179, 800	.....
1, 670, 415	2, 799, 079	2, 300, 946	1, 928, 070	3, 551, 303	4, 411, 787	3, 075, 648	.....
385, 228	295, 869	170, 612	310, 730	2, 086, 789	3, 564, 324	1, 670, 964	.....
813, 495	1, 590, 513	943, 963	1, 249, 675	3, 421, 697	1, 970, 916	994, 928	.....
966, 544	520, 135	448, 918	600, 253	554, 489	340, 259	172, 542	.....
12, 480, 853	18, 719, 842	18, 268, 671	15, 941, 903	17, 067, 220	19, 432, 784	17, 401, 652	.....
914, 241	629, 750	391, 404	713, 328	308, 221	476, 131	52, 680	.....
676, 658	898, 608	943, 384	1, 225, 357	1, 274, 186	1, 482, 240	1, 012, 129	.....
675, 306	297, 413	610, 144	73, 340	1, 190, 238	312, 060	681, 218	.....
4, 435, 719	6, 463, 570	5, 621, 248	4, 678, 268	4, 491, 496	5, 214, 900	3, 816, 346	.....
763, 315	637, 172	512, 801	1, 028, 081	1, 034, 094	1, 960, 494	1, 501, 926	.....
3, 086, 046	2, 541, 038	2, 817, 028	3, 753, 322	3, 128, 530	3, 937, 793	5, 170, 663	.....
2, 323, 038	4, 616, 722	7, 363, 213	5, 367, 063	10, 550, 968	12, 498, 474	11, 514, 210	.....
104, 448, 512	110, 734, 771	137, 424, 678	125, 559, 817	157, 622, 521	172, 429, 288	150, 471, 292	.....

ries, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 953, 929	<i>Dollars.</i> 817, 741	<i>Dollars.</i> 732, 049	<i>Dollars.</i> 1, 069, 135	<i>Dollars.</i> 572, 438	<i>Dollars.</i> 538, 856	<i>Dollars.</i> 301, 466	<i>Dollars.</i>
611, 617	382, 140	596, 756	1, 087, 362	710, 240	703, 694	833, 953	.....
1, 373, 406	1, 030, 620	1, 577, 380	1, 289, 240	1, 338, 648	1, 270, 783	1, 267, 624	.....
1, 299, 083	1, 126, 155	1, 387, 670	1, 682, 574	1, 869, 721	1, 949, 107	1, 464, 098	.....
33, 715, 749	33, 606, 125	40, 679, 882	38, 582, 437	45, 891, 863	39, 281, 097	32, 425, 158	.....
23, 170, 422	31, 313, 478	44, 707, 851	49, 269, 019	59, 780, 399	58, 530, 338	51, 124, 735	.....
5, 402, 049	6, 024, 688	5, 122, 486	4, 711, 709	3, 744, 770	4, 623, 122	4, 755, 906	.....
584, 963	1, 394, 811	939, 331	937, 594	914, 820	587, 106	775, 088	.....
1, 657, 640	957, 859	1, 109, 888	1, 149, 315	402, 019	1, 223, 024	1, 012, 671	.....
379, 245	230, 249	313, 818	311, 116	355, 699	325, 784	322, 889	.....
2, 835, 363	2, 765, 461	4, 180, 573	4, 094, 495	5, 396, 666	4, 023, 857	3, 429, 610	.....
371, 718	281, 068	323, 661	226, 968	206, 124	166, 124	166, 752	.....
2, 583, 305	3, 053, 674	2, 940, 741	3, 363, 411	3, 039, 557	3, 362, 833	3, 735, 706	.....
12, 141, 244	13, 180, 782	12, 562, 110	12, 230, 603	13, 068, 609	11, 416, 336	10, 186, 154	.....
1, 187, 143	1, 864, 001	1, 296, 881	1, 647, 641	2, 205, 218	2, 428, 133	2, 317, 351	.....
1, 262, 027	1, 218, 602	1, 504, 242	2, 475, 804	2, 051, 976	2, 408, 254	2, 224, 869	.....
523, 048	554, 875	982, 940	799, 985	1, 899, 120	1, 352, 544	843, 790	.....
3, 156, 888	2, 835, 735	3, 390, 047	4, 522, 569	5, 260, 672	4, 364, 871	2, 316, 228	.....
92, 616, 454	102, 185, 214	125, 443, 824	129, 481, 577	147, 717, 568	138, 857, 324	119, 504, 056	.....

SPAIN—Continued.

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Animals..... { dollars.....	253, 795	333, 186	760, 227	718, 153	688, 624
{ gallons.....	4, 191, 479	4, 406, 850	2, 182, 625	3, 326, 534	5, 255, 692
Brandy and spirits.....	dollars.....	1, 945, 247	2, 142, 300	1, 003, 214	1, 557, 510
Chemical products.....	dollars.....	1, 865, 345	1, 923, 245	1, 709, 208	2, 088, 889
Coal and coke..... { tons.....	441, 931	423, 114	487, 977	675, 703	770, 304
{ dollars.....	3, 512, 986	2, 970, 077	3, 196, 273	4, 043, 929	3, 694, 985
Cocoa..... { pounds.....	15, 360, 400	14, 625, 600	9, 398, 400	12, 544, 400	14, 058, 000
{ dollars.....	1, 636, 061	1, 558, 282	998, 196	1, 934, 704	2, 142, 468
Codfish..... { pounds.....	76, 522, 600	86, 570, 000	76, 804, 200	69, 663, 000	72, 465, 900
{ dollars.....	3, 356, 463	3, 797, 468	3, 368, 815	3, 055, 576	3, 051, 523
Cotton..... { pounds.....	59, 696, 200	83, 294, 200	74, 864, 400	86, 191, 600	85, 718, 600
{ dollars.....	12, 846, 017	17, 158, 088	15, 830, 762	15, 122, 515	11, 798, 669
Cotton manufactures.....	dollars.....	973, 685	969, 825	1, 830, 849	1, 911, 472
Hides and skins..... { pounds.....	19, 144, 400	18, 416, 200	19, 628, 400	17, 855, 900	14, 168, 000
{ dollars.....	4, 183, 486	4, 128, 463	4, 512, 583	3, 890, 579	2, 674, 208
Iron, wrought and unwrought.....	dollars.....	2, 095, 787	2, 760, 479	2, 142, 493	2, 640, 047
Linen and hemp yarn..... { pounds.....	10, 703, 000	13, 609, 200	12, 689, 600	12, 713, 800	12, 909, 600
{ dollars.....	4, 294, 027	5, 441, 046	5, 087, 673	5, 096, 937	5, 175, 874
Linen and hemp manufactures.....	{ pounds.....	796, 400	803, 600	932, 600	1, 324, 400
{ dollars.....	472, 464	486, 939	607, 564	854, 990	1, 188, 000
Machinery..... { tons.....	.....	.....	11, 822	14, 909	10, 586
{ dollars.....	1, 658, 063	1, 319, 541	1, 876, 153	2, 310, 579	2, 887, 473
Materials for railways.....	dollars.....	2, 071, 876	2, 828, 590	3, 811, 171	4, 490, 122
Oils, mineral..... { pounds.....	67, 953, 600	82, 772, 800	61, 415, 200	73, 293, 000	102, 966, 600
{ dollars.....	2, 556, 285	3, 101, 124	2, 144, 037	2, 541, 617	3, 477, 800
Paper..... { pounds.....	3, 159, 200	6, 875, 000	11, 970, 200	10, 973, 000	16, 254, 200
{ dollars.....	318, 643	698, 274	1, 153, 561	1, 093, 152	1, 024, 830
Ships..... { dollars.....	4, 274, 564	2, 177, 426	2, 542, 003	787, 826	538, 277
Silk..... { pounds.....	268, 954	317, 706	281, 283	333, 713	290, 873
{ dollars.....	1, 124, 804	1, 828, 075	1, 182, 318	1, 242, 148	1, 268, 975
Silk manufactures..... { pounds.....	24, 800	78, 713	99, 607	149, 074	142, 513
{ dollars.....	524, 574	562, 209	732, 628	1, 074, 817	1, 053, 780
Sugar..... { pounds.....	90, 602, 600	77, 431, 200	63, 817, 600	91, 515, 600	68, 181, 600
{ dollars.....	6, 098, 203	5, 166, 224	4, 296, 566	6, 291, 221	4, 522, 376
Timber and building materials.....	dollars.....	3, 908, 899	4, 520, 446	3, 879, 686	4, 237, 894
Tobacco..... { dollars.....	3, 946, 464	5, 896, 280	5, 027, 843	4, 568, 503	4, 056, 261
Wheat..... { bushels.....	2, 578	575, 763	820, 600	144, 888	337, 442
{ dollars.....	2, 078	757, 525	1, 079, 835	205, 931	479, 005
Wool manufactures..... { pounds.....	1, 290, 400	2, 189, 000	1, 746, 800	2, 998, 600	3, 346, 200
{ dollars.....	1, 505, 014	1, 967, 828	1, 919, 964	3, 655, 034	3, 660, 245
All other articles.....	dollars.....	17, 431, 686	24, 89, 5322	23, 561, 232	20, 722, 193
TOTAL IMPORTS.....	dollars.....	82, 355, 416	98, 190, 101	92, 267, 124	104, 536, 713
					94, 845, 734

SPAIN—Continued.

pal articles imported—merchandise only.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
733,598	1,262,799	1,394,282	2,096,945	1,389,600	1,621,007	1,657,870	3,183,728
3,801,674	9,002,042	14,722,511	14,613,171	15,221,290	16,890,650	17,394,236	25,046,987
1,987,821	4,785,075	8,175,866	8,456,102	8,757,375	9,688,600	9,479,569	10,668,531
1,919,885	2,066,573	2,403,236	2,078,647	2,849,259	2,977,025	2,925,687	2,988,429
774,018	795,812	910,931	1,014,568	1,143,560	1,306,354	1,384,944	1,449,000
3,662,175	8,720,624	3,747,480	3,984,485	4,491,111	5,128,189	5,826,284	4,830,404
11,712,800	13,061,400	18,636,200	12,302,400	15,187,600	13,214,400	17,318,400	15,878,205
1,996,971	2,189,134	2,958,672	1,913,209	2,431,993	2,162,830	2,826,078	2,828,608
77,712,800	85,034,200	97,537,000	94,822,200	94,063,200	93,262,400	106,612,000	106,692,920
3,272,315	3,277,912	3,422,662	3,660,052	3,980,239	2,829,313	5,979,333	5,746,575
79,092,200	80,841,200	98,511,800	99,187,000	102,047,000	117,009,200	115,770,600	107,615,025
11,448,567	12,765,509	15,555,800	14,791,713	15,218,030	17,448,551	16,014,754	12,715,805
1,967,680	1,874,363	1,804,497	2,003,270	1,972,653	2,102,242	2,285,712	2,184,760
16,863,000	16,904,800	13,508,600	18,281,400	16,350,400	17,188,600	15,015,000	22,118,355
3,037,820	3,075,648	2,721,529	3,418,802	3,278,298	3,472,456	3,302,616	1,694,146
2,298,051	2,790,008	4,048,279	3,979,660	4,453,658	4,734,097	4,583,184	2,994,781
11,028,600	8,283,000	8,949,600	9,836,200	10,331,200	10,208,000	9,193,600	7,325,010
4,256,808	3,276,754	2,587,870	3,939,709	4,078,076	3,047,789	3,619,908	2,504,190
1,348,600	1,293,600	1,397,000	1,623,600	1,410,200	1,403,600	1,164,000	1,318,590
730,505	764,067	820,443	825,654	846,498	871,588	772,386	827,005
11,371	14,944	22,887	24,684	28,064	24,396	20,438	19,585
2,525,019	3,321,725	5,082,655	5,476,954	6,268,400	5,444,530	5,846,356	4,223,998
4,879,619	3,600,608	4,681,408	4,450,580	4,405,225	6,722,190	4,970,186	2,913,528
75,603,000	94,364,600	109,725,000	152,836,800	129,827,600	137,011,600	142,897,260	282,748,195
2,455,539	2,210,622	2,066,644	2,449,556	1,910,907	2,134,580	2,243,339	2,962,828
8,598,600	9,024,200	9,196,000	9,713,000	11,382,800	14,176,800	14,354,400	13,331,430
927,365	1,151,017	1,106,469	1,243,499	1,474,906	1,793,935	1,566,002	1,167,722
141,083	134,714	945,507	669,131	2,834,784	8,533,251	2,050,625	1,646,676
320,680	280,722	347,342	364,097	408,564	424,588	396,000	357,790
1,248,517	1,078,098	1,332,858	1,393,267	1,621,393	1,677,556	1,516,401	1,126,125
199,496	168,570	178,701	227,068	477,074	230,381	224,400	219,927
1,415,269	1,165,913	1,206,080	1,638,377	2,411,342	1,807,445	1,800,111	1,810,726
65,496,200	73,359,000	62,649,400	74,809,035	77,285,250	98,177,625	119,056,770	117,078,885
4,437,070	4,832,527	4,115,146	4,991,752	4,931,343	5,999,535	7,348,089	5,878,587
4,619,455	4,258,159	5,411,913	6,100,730	6,612,373	7,350,312	7,071,520	6,188,738
5,025,334	3,773,150	4,236,736	4,615,402	5,048,494	6,645,762	4,136,569	5,596,456
2,207,080	4,419,506	1,096,733	732,490	10,109,880	8,725,237	3,606,570	4,110,271
3,222,822	6,078,880	1,616,375	1,041,012	14,367,885	12,403,075	3,998,904	4,326,674
4,082,600	3,962,000	3,999,600	4,578,200	4,967,640	4,611,200	5,178,800	5,192,795
5,121,448	4,402,716	4,477,021	5,105,022	4,020,383	5,142,090	5,955,694	5,584,262
22,614,555	31,425,790	33,308,662	32,779,120	40,065,605	45,707,875	32,932,567	42,764,202
96,944,286	110,177,494	120,183,030	123,705,280	149,719,750	162,932,723	141,753,096	142,854,464

SPAIN—Continued.

Quantities and value of

Articles.	1873.	1874.	1875.	1876.	1877.
Animals	{ number.. 41, 870 dollars.. 1, 742, 597	{ 41, 513 1, 231, 726	{ 62, 483 1, 712, 296	{ 87, 283 2, 081, 505	{ 188, 942 2, 997, 869
Boots and shoes	{ dollars.. 2, 185, 653	{ 2, 155, 424	{ 1, 618, 691	{ 1, 789, 496	{ 1, 827, 955
Brandy and spirits	{ gallons.. 3, 421, 101 dollars.. 1, 370, 862	{ 554, 157 213, 844	{ 1, 076, 616 436, 952	{ 1, 501, 467 649, 638	{ 570, 755 230, 825
Cork	{ dollars.. 3, 068, 314	{ 2, 200, 972	{ 1, 910, 314	{ 6, 209, 657	{ 1, 705, 348
Esparto grass	{ tons.. 54, 446 dollars.. 1, 826, 160	{ 52, 575 2, 033, 584	{ 49, 751 1, 927, 877	{ 42, 312 1, 640, 500	{ 38, 592 1, 496, 522
Fruit:					
Almonds	{ pounds.. 8, 881, 400 dollars.. 779, 141	{ 4, 963, 200 820, 907	{ 7, 614, 200 884, 133	{ 8, 659, 200 582, 281	{ 9, 444, 800 831, 251
Oranges	{ number.. 508, 369, 000 dollars.. 1, 566, 423	{ 389, 809, 000 1, 821, 341	{ 440, 340, 000 1, 859, 878	{ 627, 010, 000 1, 936, 176	{ 677, 220, 000 2, 091, 848
Raisins	{ pounds.. 74, 783, 400 dollars.. 4, 502, 242	{ 85, 316, 000 5, 240, 336	{ 71, 306, 400 4, 378, 977	{ 93, 475, 800 5, 741, 537	{ 83, 072, 000 5, 100, 797
Nuts	{ pounds.. 16, 368, 000 dollars.. 861, 562	{ 7, 970, 600 419, 582	{ 13, 890, 800 731, 084	{ 12, 528, 800 644, 234	{ 15, 741, 444 828, 326
Hides and skins	{ pounds.. 2, 327, 600 dollars.. 1, 442, 848	{ 1, 911, 600 1, 246, 587	{ 2, 860, 000 1, 676, 977	{ 2, 886, 400 1, 172, 475	{ 3, 348, 400 1, 300, 820
Metals:					
Copper regulus	{ tons.. 4, 884 dollars.. 644, 041	{ 4, 893 51, 531	{ 5, 226 76, 621	{ 7, 524 1, 294, 079	{ 12, 720 2, 187, 269
Lead	{ tons.. 73, 079 dollars.. 7, 325, 701	{ 96, 469 9, 099, 757	{ 101, 180 9, 594, 223	{ 98, 664 9, 194, 713	{ 122, 408 11, 576, 333
Mineral ores:					
Copper	{ tons.. 260, 465 dollars.. 3, 952, 254	{ 294, 264 4, 479, 530	{ 362, 899 5, 514, 782	{ 462, 075 7, 022, 395	{ 527, 599 7, 933, 458
Iron	{ tons.. 812, 661 dollars.. 1, 544, 772	{ 711, 390 1, 351, 886	{ 391, 776 647, 708	{ 692, 807 1, 316, 067	{ 1, 288, 542 2, 428, 826
Other ores	{ dollars.. 2, 432, 572	{ 2, 205, 260	{ 1, 835, 046	{ 2, 160, 056	{ 2, 018, 780
Olive oil	{ pounds.. 115, 183, 200 dollars.. 7, 111, 850	{ 47, 031, 600 3, 562, 973	{ 12, 276, 600 750, 577	{ 10, 982, 400 867, 149	{ 21, 304, 800 1, 684, 625
Quicksilver	{ pounds.. 2, 789, 600 dollars.. 2, 678, 261	{ 3, 027, 200 3, 621, 259	{ 3, 775, 200 4, 709, 972	{ 2, 125, 200 1, 153, 175	{ 3, 907, 200 2, 056, 414
Salt	{ tons.. 241, 064 dollars.. 1, 691, 438	{ 271, 024 713, 135	{ 296, 324 781, 264	{ 228, 419 601, 195	{ 324, 435 1, 150, 070
Silk	{ pounds.. 194, 950 dollars.. 865, 219	{ 108, 741 563, 946	{ 136, 182 476, 517	{ 142, 645 735, 323	{ 86, 772 513, 008
Wheat	{ bushels.. 7, 269, 717 dollars.. 9, 566, 238	{ 2, 893, 360 4, 107, 812	{ 622, 570 886, 642	{ 454, 190 642, 883	{ 1, 604, 572 2, 276, 049
Wheat flour	{ barrels.. 1, 025, 216 dollars.. 6, 507, 574	{ 539, 794 3, 252, 822	{ 447, 620 2, 700, 070	{ 575, 049 3, 390, 817	{ 1, 003, 808 6, 043, 049
Wine:					
Common and Catalanian	{ gallons.. 53, 994, 636 dollars.. 11, 928, 721	{ 44, 319, 760 11, 730, 926	{ 45, 851, 620 15, 914, 973	{ 34, 107, 358 8, 309, 580	{ 49, 398, 265 10, 644, 284
Sherry and port	{ gallons.. 13, 210, 710 dollars.. 21, 759, 907	{ 8, 697, 156 14, 316, 933	{ 7, 375, 406 12, 148, 192	{ 8, 198, 333 11, 909, 003	{ 7, 892, 127 11, 418, 450
All other	{ gallons.. 2, 527, 780 dollars.. 1, 176, 721	{ 2, 825, 818 1, 287, 503	{ 2, 656, 226 1, 244, 078	{ 2, 437, 314 2, 675, 366	{ 2, 562, 519 2, 812, 782
Total wine	{ gallons.. 60, 733, 126 dollars.. 34, 856, 349	{ 55, 842, 734 27, 335, 302	{ 55, 886, 252 29, 307, 243	{ 44, 743, 008 22, 983, 949	{ 59, 762, 911 25, 075, 55
Wool	{ pounds.. 5, 818, 400 dollars.. 1, 176, 721	{ 4, 331, 000 771, 035	{ 9, 295, 000 1, 571, 213	{ 4, 072, 200 668, 838	{ 8, 596, 500 1, 453, 097
All other articles	{ dollars.. 14, 130, 048	{ 10, 582, 148	{ 11, 750, 998	{ 14, 650, 665	{ 14, 512, 535
TOTAL EXPORTS	{ dollars.. 113, 515, 266	{ 88, 782, 509	{ 87, 210, 053	{ 85, 128, 633	{ 99, 171, 694

SPAIN—Continued.

principal articles exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
198,791	123,804	173,661	80,287	95,095	95,699	72,563	72,419
1,627,888	1,914,580	1,889,663	1,617,945	2,312,526	4,419,700	4,127,498	4,047,982
1,106,662	1,244,404	1,342,508	1,383,231	2,075,829	1,919,192	1,645,904	2,127,053
724,945	819,999	710,015	797,052	927,081	1,039,960	849,275	-----
307,642	351,839	305,905	341,810	417,266	506,818	401,247	-----
1,721,753	3,771,992	2,127,146	2,861,611	2,522,738	2,670,541	2,736,740	2,933,407
34,714	37,360	42,644	36,435	45,494	41,582	38,938	44,510
1,316,561	1,440,430	1,650,922	1,411,802	1,781,004	1,836,219	1,887,893	1,571,599
5,748,000	0,590,400	0,662,800	7,510,000	8,989,200	7,350,200	7,225,715	8,165,115
501,414	888,765	914,434	767,561	843,410	870,044	793,315	891,081
637,515,000	682,888,000	788,862,000	509,562,000	-----	-----	-----	-----
1,845,650	2,046,765	2,283,769	1,735,640	5,629,231	4,189,644	4,452,510	2,755,268
91,017,403	71,691,400	63,720,800	79,538,800	91,913,800	78,973,400	66,498,390	73,250,100
5,396,473	4,080,599	3,633,611	4,537,237	5,241,108	4,156,834	3,201,201	3,847,648
13,244,000	15,835,600	13,384,800	11,415,800	11,706,200	11,464,200	13,148,415	10,758,195
705,222	833,567	703,650	601,002	616,219	574,947	518,205	621,460
2,173,600	2,800,600	4,481,400	3,931,200	4,171,200	5,082,525	3,755,115	3,005,415
814,656	725,467	1,149,701	1,027,918	1,032,857	1,021,742	899,249	891,081
11,429	22,478	23,099	26,938	24,983	26,560	21,222	29,683
1,994,910	3,746,709	4,084,612	4,649,846	4,204,891	3,748,253	2,612,834	3,394,870
119,594	115,753	109,240	121,962	126,904	149,945	130,599	129,879
10,413,244	10,209,700	9,934,075	9,907,070	9,360,114	10,431,457	6,221,162	7,123,051
415,773	458,273	523,821	460,120	580,577	573,589	679,754	864,402
6,359,853	6,094,580	6,965,563	6,118,486	7,720,193	3,813,680	3,578,027	3,791,871
1,377,996	1,074,859	2,867,355	3,172,414	4,089,684	4,293,503	4,364,868	4,364,466
2,598,359	3,074,101	8,183,393	9,039,541	11,651,147	7,340,176	6,891,644	6,228,882
1,421,445	1,441,324	1,842,378	1,351,000	1,544,772	1,373,002	861,745	2,205,704
54,441,200	33,138,600	30,004,200	54,175,000	30,206,000	58,311,000	47,178,180	92,687,830
4,298,303	2,703,737	2,496,841	4,420,086	2,384,901	4,603,822	3,495,230	7,723,860
3,014,000	4,814,800	2,928,200	3,916,000	2,347,400	1,137,400	2,454,163	2,238,075
1,453,076	2,323,334	1,412,567	1,717,700	1,070,764	567,397	1,150,859	970,283
300,395	285,300	351,698	369,704	251,816	336,065	353,495	352,877
1,055,780	1,004,955	1,234,235	1,297,346	863,289	1,003,793	926,593	578,807
171,624	133,218	141,860	149,998	122,146	124,887	98,548	-----
821,022	631,862	618,951	452,006	489,255	492,160	396,931	285,254
572,280	75,820	108,870	97,130	112,090	66,150	-----	-----
848,042	119,467	154,786	148,224	182,964	104,412	-----	-----
468,686	405,190	418,012	423,953	319,270	322,216	289,440	135,984
2,966,410	2,787,885	2,216,720	2,522,425	2,084,014	1,831,763	1,638,364	1,409,579
67,114,020	91,191,820	153,192,593	174,198,171	192,041,650	191,261,214	162,601,950	182,167,152
14,783,427	20,018,925	33,029,864	38,241,020	48,846,726	46,185,470	42,773,625	53,106,204
6,540,736	5,663,977	7,153,955	7,060,324	7,400,432	7,196,155	3,948,612	4,956,001
9,572,007	9,320,562	10,469,864	10,328,974	10,918,203	10,512,517	7,068,046	5,431,985
3,011,498	4,509,070	3,785,868	4,228,068	4,142,194	3,626,826	2,912,896	2,644,664
8,305,511	4,957,292	4,092,951	4,641,650	4,540,501	2,972,393	2,881,620	1,932,509
76,666,854	101,364,873	164,132,416	185,487,463	203,644,276	202,084,193	109,463,458	189,767,847
27,611,545	34,302,749	48,192,679	53,211,644	64,811,430	59,670,389	52,223,291	60,084,714
7,878,200	8,418,000	13,732,400	8,529,400	5,889,400	8,618,200	8,019,503	5,997,600
1,141,981	1,263,784	2,270,066	1,240,096	1,139,279	1,546,123	1,270,133	892,625
13,885,764	14,740,779	17,077,001	15,059,663	16,606,458	18,880,650	17,683,046	17,384,082
92,175,256	101,351,441	122,985,776	127,229,607	146,346,689	137,458,267	119,045,681	132,826,460

SWEDEN.

Value of imports from the principal

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia and Finland.....	5,065,200	10,192,576	4,883,496	6,083,600	10,334,348
Norway.....	3,631,132	4,031,256	4,024,968	4,487,660	3,993,736
Denmark.....	9,980,320	14,372,840	13,100,376	13,563,212	13,245,672
Germany.....	18,239,276	16,806,816	14,794,940	15,507,820	18,049,532
Holland.....	2,660,972	3,038,048	2,459,972	2,930,848	3,242,532
Belgium.....	1,582,540	1,740,392	2,174,016	2,435,232	2,508,212
United Kingdom.....	25,464,020	24,350,748	24,639,384	26,344,400	23,391,308
France.....	2,510,356	2,877,784	2,714,572	3,109,068	2,468,916
Spain.....	453,992	500,088	330,712	307,664	329,372
Italy.....	318,116	318,116	313,560	337,948	299,088
United States.....	2,133,280	2,221,720	645,176	1,547,968	1,852,148
All other countries.....	704,716	1,774,696	1,768,516	1,162,400	1,561,788
TOTAL IMPORTS.....	72,745,920	82,225,080	71,841,688	77,817,820	81,316,530

Value of exports to principal coun-

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia and Finland.....	1,905,748	1,690,008	1,511,252	1,253,168	1,191,260
Norway.....	1,989,632	2,000,332	1,900,924	1,843,036	1,792,116
Denmark.....	5,862,232	8,500,156	6,008,344	6,322,120	5,960,392
Germany.....	4,890,732	3,831,060	3,467,116	4,395,004	3,648,944
Holland.....	1,408,608	1,403,784	1,316,952	3,126,220	2,838,656
Belgium.....	1,973,284	2,285,772	2,567,440	2,577,892	2,166,244
United Kingdom.....	32,405,220	33,979,184	29,279,000	32,229,124	31,252,284
France.....	5,142,652	5,308,008	6,615,116	6,789,780	6,684,724
Spain.....	319,420	637,136	446,488	664,640	593,888
Italy.....	158,120	7,772	96,748	86,564	83,224
United States.....	1,864,208	556,368	294,264	217,348	189,940
All other countries.....	1,450,416	2,313,376	1,252,292	1,134,476	1,464,012
TOTAL EXPORTS.....	59,470,272	62,532,976	55,355,936	60,629,372	57,864,684

SWEDEN.

countries, bullion and specie included.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
7, 072, 520	6, 208, 344	7, 030, 176	6, 767, 000	6, 818, 492	8, 752, 812	9, 073, 944	.....
3, 091, 648	2, 976, 408	4, 495, 432	4, 558, 268	5, 041, 616	5, 584, 816	5, 911, 812	.....
11, 182, 300	12, 914, 920	14, 967, 264	13, 819, 688	13, 997, 104	15, 195, 064	14, 143, 432	.....
15, 209, 536	13, 840, 324	16, 552, 752	20, 579, 184	22, 502, 888	24, 301, 972	23, 862, 088	.....
2, 858, 220	2, 455, 148	2, 246, 912	2, 051, 540	2, 448, 716	2, 849, 452	1, 779, 718	.....
1, 799, 620	1, 725, 384	2, 332, 940	2, 290, 060	2, 417, 896	2, 511, 964	2, 355, 720	.....
17, 054, 716	15, 853, 004	20, 835, 124	19, 768, 484	20, 957, 668	23, 022, 272	23, 891, 664	.....
2, 147, 752	1, 465, 092	1, 733, 156	2, 085, 844	2, 042, 964	1, 881, 528	2, 288, 088	.....
386, 992	264, 248	374, 128	564, 140	594, 424	385, 384	482, 132	.....
275, 544	201, 536	277, 648	244, 952	400, 124	373, 800	308, 200	.....
2, 044, 572	1, 655, 436	3, 154, 800	2, 631, 760	1, 654, 364	2, 540, 908	1, 437, 284	.....
1, 066, 104	1, 128, 012	1, 787, 292	1, 839, 560	1, 977, 304	2, 091, 228	1, 803, 254	.....
64, 189, 484	60, 656, 456	75, 787, 184	77, 200, 480	80, 851, 760	89, 490, 560	87, 339, 136	.....

tries, bullion and specie included.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
1, 280, 688	1, 065, 204	1, 903, 068	1, 736, 104	2, 220, 380	2, 216, 360	2, 163, 564	.....
1, 901, 460	1, 723, 776	2, 131, 940	2, 185, 808	2, 847, 500	2, 470, 156	2, 920, 396	.....
5, 621, 836	5, 514, 100	6, 413, 508	5, 888, 928	6, 596, 552	8, 625, 848	8, 917, 068	.....
3, 098, 616	3, 587, 448	4, 581, 728	5, 520, 532	4, 923, 964	4, 971, 036	4, 863, 128	.....
1, 360, 904	1, 536, 712	1, 645, 252	2, 786, 932	2, 064, 672	2, 506, 604	2, 372, 872	.....
2, 365, 100	2, 691, 292	8, 285, 144	2, 404, 128	2, 851, 252	2, 231, 368	2, 056, 900	.....
24, 947, 316	24, 564, 612	33, 178, 068	28, 798, 744	34, 158, 476	34, 457, 832	30, 030, 740	.....
6, 968, 536	7, 458, 172	7, 691, 332	7, 612, 272	8, 942, 088	8, 384, 916	7, 857, 760	.....
552, 616	413, 524	403, 072	853, 312	963, 460	1, 190, 992	861, 885	.....
57, 094	72, 628	39, 396	125, 424	143, 112	211, 720	176, 880	.....
126, 228	800, 428	768, 892	95, 140	431, 748	90, 852	465, 784	.....
1, 107, 368	1, 063, 996	1, 370, 284	1, 809, 204	1, 898, 512	1, 418, 524	1, 260, 139	.....
49, 397, 760	49, 891, 952	63, 412, 234	59, 816, 528	68, 041, 716	68, 777, 108	63, 948, 016	.....

SWEDEN—Continued.

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Coal	dollars. 4, 162, 308	3, 529, 560	4, 130, 952	4, 056, 716	3, 605, 672
Coffee	{ pounds 24, 833, 600	20, 064, 000	21, 824, 000	24, 877, 600	23, 790, 480
	{ dollars. 5, 479, 790	4, 034, 824	4, 690, 536	4, 990, 180	4, 430, 844
Cotton	{ pounds 18, 455, 400	21, 018, 800	13, 160, 400	22, 242, 000	19, 395, 200
	{ dollars. 3, 103, 244	3, 013, 124	1, 794, 260	2, 870, 816	2, 500, 976
Cotton yarn, unbleached	{ pounds 3, 656, 400	5, 471, 400	4, 408, 800	5, 046, 800	4, 327, 400
	{ dollars. 1, 105, 768	1, 206, 268	923, 796	1, 291, 224	924, 352
Cotton manufactures	dollars. 2, 199, 208	2, 842, 140	2, 272, 908	1, 003, 672	2, 037, 168
Grain:					
Rye	dollars. 1, 868, 764	5, 108, 080	2, 667, 136	1, 949, 432	4, 489, 536
Rye meal	dollars. 1, 392, 528	2, 304, 264	1, 094, 244	1, 238, 428	2, 646, 232
Wheat flour	dollars. 1, 303, 048	1, 027, 188	1, 748, 968	1, 545, 556	2, 788, 700
Herrings	dollars. 1, 519, 560	1, 558, 956	2, 067, 620	2, 219, 844	2, 141, 000
Machinery	dollars. 3, 456, 664	4, 779, 244	4, 245, 656	3, 630, 566	2, 636, 584
Oilcake	{ pounds 8, 811, 000	16, 918, 000	15, 847, 200	21, 991, 200	24, 439, 800
	{ dollars. 132, 660	335, 636	351, 884	472, 782	490, 172
Oil:					
Mineral	{ pounds 18, 427, 200	19, 764, 800	20, 099, 200	21, 927, 400	24, 439, 800
	{ dollars. 731, 908	658, 476	627, 924	1, 122, 652	800, 548
All other	dollars. 510, 384	613, 488	679, 916	741, 288	715, 628
Pork	{ pounds 22, 116, 600	21, 749, 200	19, 606, 400	25, 063, 000	30, 294, 000
	{ dollars. 2, 058, 240	2, 369, 976	2, 656, 148	3, 162, 400	2, 821, 504
Rice and sago	{ pounds 7, 143, 400	8, 654, 800	7, 464, 600	11, 235, 400	9, 515, 000
	{ dollars. 230, 212	328, 568	279, 256	356, 708	329, 260
Salt	dollars. 407, 360	537, 092	396, 104	335, 000	456, 672
Silk manufactures	dollars. 683, 668	964, 900	842, 860	891, 904	810, 968
Skins:					
Dressed	{ pounds 2, 329, 800	2, 125, 200	1, 821, 600	3, 491, 400	3, 295, 600
	{ dollars. 932, 104	905, 620	1, 028, 316	1, 394, 672	1, 419, 664
Undressed	{ pounds 9, 064, 000	6, 108, 800	5, 803, 000	4, 776, 200	4, 162, 400
	{ dollars. 1, 818, 360	1, 243, 216	1, 203, 630	938, 968	715, 828
Spirits:					
Arrack	{ gallons 371, 890	473, 430	278, 480	382, 170	310, 960
	{ dollars. 353, 760	404, 680	249, 776	289, 172	265, 588
Cognac	{ gallons 267, 490	327, 310	364, 360	430, 540	385, 600
	{ dollars. 260, 512	347, 060	90, 516	131, 032	194, 300
Sugar:					
Refined	{ pounds 23, 194, 000	21, 621, 600	25, 581, 600	36, 032, 600	33, 257, 400
	{ dollars. 1, 677, 524	1, 697, 780	1, 788, 632	2, 734, 772	2, 706, 632
Unrefined	{ pounds 42, 735, 600	38, 974, 900	42, 840, 600	32, 311, 400	37, 466, 800
	{ dollars. 2, 953, 092	2, 459, 168	2, 714, 572	2, 221, 956	2, 900, 028
Molasses	dollars. 338, 752	485, 348	832, 052	260, 976	578, 612
Tallow	{ pounds 4, 280, 200	4, 406, 600	2, 010, 600	2, 814, 000	2, 752, 200
	{ dollars. 414, 060	416, 740	195, 908	273, 092	276, 040
Tobacco, in leaf and stalk	{ pounds 7, 475, 000	8, 025, 600	6, 833, 200	7, 264, 400	7, 486, 600
	{ dollars. 895, 924	951, 936	1, 014, 648	1, 187, 240	1, 216, 720
Wine:					
In casks	dollars. 699, 480	727, 084	644, 272	404, 412	365, 820
In bottles	dollars. 562, 264	663, 568	395, 300	297, 272	354, 564
Wool	{ pounds 3, 722, 400	3, 454, 000	3, 066, 800	4, 090, 400	4, 067, 800
	{ dollars. 1, 599, 692	1, 493, 564	1, 230, 656	1, 760, 492	1, 842, 768
Woolen yarn	{ pounds 1, 100, 000	1, 276, 000	1, 139, 600	1, 335, 400	1, 337, 600
	{ dollars. 1, 153, 204	833, 480	816, 596	1, 056, 354	838, 304
Woolen manufactures	dollars. 4, 517, 944	5, 623, 480	4, 223, 680	4, 700, 452	5, 329, 716
All other articles	dollars. 21, 021, 004	25, 316, 620	22, 330, 564	25, 358, 168	26, 691, 472
TOTAL IMPORTS	dollars. 69, 842, 676	79, 668, 628	69, 819, 092	75, 857, 400	80, 400, 172

SWEDEN—Continued.

and other articles imported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
2,645,428	2,644,088	4,090,084	3,475,424	4,262,004	4,352,000	4,361,968	.....
21,304,600	22,064,400	24,882,000	27,152,400	34,172,600	31,238,400	31,176,675	.....
4,007,136	3,767,008	3,630,356	3,100,068	2,003,752	3,196,163	3,561,988	.....
13,807,200	15,140,400	21,800,400	22,094,400	22,046,000	27,084,000	21,960,766	.....
1,891,004	1,938,176	2,605,228	3,081,464	3,270,404	3,400,228	2,802,744	.....
2,841,200	2,849,000	4,503,400	5,150,000	4,351,000	5,302,000	2,275,018	.....
512,684	784,721	1,134,170	1,013,308	806,176	1,313,468	717,108	.....
1,360,900	1,371,353	1,733,320	1,937,908	1,902,800	2,268,352	2,370,068	.....
4,801,168	3,594,416	3,366,348	4,290,792	4,453,088	5,549,744	4,663,776	.....
780,848	831,064	765,140	533,876	597,640	857,868	754,420	.....
2,485,968	2,081,536	2,595,044	1,407,536	1,762,452	2,269,960	2,308,824	.....
1,334,640	1,297,824	2,095,760	1,486,060	1,330,620	1,405,928	1,390,384	.....
1,528,136	1,052,752	1,403,744	1,807,172	2,123,096	2,516,768	2,651,056	.....
15,611,000	14,674,000	37,727,400	52,244,000	28,551,600	30,458,200	46,937,735	.....
268,804	210,380	540,536	1,018,036	521,796	536,100	855,992	.....
24,673,000	25,440,800	27,313,000	37,160,200	39,305,200	42,000,200	50,751,708	.....
701,048	634,108	652,312	905,304	929,424	1,014,648	1,251,838	.....
693,316	921,920	940,764	954,080	758,172	967,212	1,139,000	.....
27,469,800	28,094,000	32,771,200	26,400,000	10,826,200	21,895,000	11,495,668	.....
1,767,102	1,611,412	3,024,112	2,765,700	1,476,948	2,319,540	1,864,924	.....
10,086,200	8,610,800	.....	13,633,200	19,228,000	19,890,200	19,916,852	.....
721,724	235,604	504,376	383,240	456,943	469,268	553,168	.....
490,708	310,724	407,628	497,140	525,816	501,964	380,828	.....
793,548	615,864	765,140	795,960	836,160	818,740	997,228	.....
3,625,800	3,678,400	4,061,200	3,931,400	4,072,000	4,862,000	4,418,264	.....
1,337,320	1,472,392	1,609,908	1,514,408	1,841,428	1,885,112	1,725,988	.....
4,809,200	3,394,600	5,106,200	5,504,400	5,988,400	5,537,200	4,747,323	.....
87,048	523,436	877,968	1,005,804	1,094,244	1,016,452	865,872	.....
276,156	226,560	161,920	210,210	215,220	257,680	242,216	.....
235,840	102,060	157,048	192,424	218,688	201,836	286,402	.....
427,010	469,740	394,830	432,020	383,180	239,420	337,196	.....
422,636	535,732	567,724	681,524	565,212	545,112	536,268	.....
28,540,600	27,951,000	29,616,400	24,714,800	24,533,200	30,107,200	16,430,734	.....
2,159,544	2,129,528	2,037,068	1,716,004	1,785,952	2,096,832	1,618,284	.....
41,135,600	39,305,400	41,232,400	47,120,200	54,221,200	59,232,800	55,377,501	.....
2,576,160	2,484,360	2,480,340	2,689,518	3,203,672	3,355,628	2,654,736	.....
515,900	359,388	507,592	405,484	527,960	546,988	509,736	.....
3,102,000	3,562,400	2,780,800	2,745,000	2,228,600	3,009,600	3,248,753	.....
284,348	336,340	239,056	234,232	209,040	282,204	287,832	.....
7,321,600	12,185,800	4,295,800	5,482,800	7,187,400	7,755,000	7,013,315	.....
1,131,761	2,000,621	612,916	981,052	1,330,885	1,435,944	2,332,136	.....
188,940	170,180	397,444	481,506	873,412	317,583	541,628	.....
484,008	171,520	317,060	372,788	474,092	373,592	480,256	.....
1,885,400	2,004,200	2,811,400	3,564,000	3,447,400	4,070,200	4,656,243	.....
675,360	717,972	1,014,112	1,302,748	1,260,940	1,480,452	1,698,852	.....
1,075,800	1,203,400	1,212,200	1,397,000	1,762,200	2,019,600	2,213,952	.....
605,996	711,540	860,048	960,084	826,512	918,704	961,148	.....
3,622,220	3,452,644	5,535,004	5,652,954	5,434,236	6,216,528	6,003,200	.....
20,145,360	17,656,925	24,939,640	28,211,358	30,170,561	33,392,842	33,126,996	.....
62,123,740	57,155,556	72,733,056	75,644,072	78,694,216	87,911,772	85,824,320	.....

SWEDEN—Continued.

Quantity and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Animals:					
Cattle..... { number.. 26,245 22,865 20,863 20,525 20,528					
{ dollars... 1,971,676 1,473,782 1,905,180 855,188 1,431,656					
Sheep..... { number.. 14,728 21,689 16,708 18,521 19,968					
{ dollars... 81,472 87,636 76,380 118,992 112,560					
Swine..... { number.. 19,987 11,116 13,126 13,285 12,762					
{ dollars... 307,982 163,748 230,748 234,768 102,644					
Brandy and spirits..... { gallons 2,366 580 502					
{ dollars... 1,478 590 456					
Butter..... { pounds 6,594,400 6,668,200 7,161,000 7,787,400 8,208,200					
{ dollars... 1,590,313 1,719,756 1,823,986 1,955,528 2,114,320					
Fish, fresh and salted..... { dollars... 63,516 70,484 76,700 56,280 109,612					
Grain:					
Wheat..... { dollars... 502,768 369,036 523,136 618,276 228,460					
Barley..... { dollars... 1,204,124 1,276,752 1,189,920 1,163,120 1,022,956					
Oats..... { dollars... 6,969,340 9,223,488 7,554,920 9,894,912 5,987,900					
Wheat flour..... { pounds 5,477,400 4,598,000 6,210,600 5,865,200 2,968,400					
{ dollars... 284,232 175,272 204,752 143,880 212,328					
Iron:					
Pig..... { tons 63,667 46,044 53,617 24,136 82,151					
{ dollars... 2,189,560 1,053,776 1,076,484 584,508 552,884					
Bar..... { tons 104,903 97,378 117,032 107,028 125,191					
{ dollars... 7,816,220 6,139,344 6,975,772 4,932,808 4,604,004					
Blooms..... { tons 11,488 9,688 12,581 11,848 15,444					
{ dollars... 477,308 391,546 568,428 510,540 441,932					
Bolt, hoop, &c..... { tons 22,599 20,378 22,903 27,032 31,798					
{ dollars... 1,860,888 1,372,428 1,743,340 1,471,856 1,339,464					
Iron wares..... { tons 4,570 2,992 2,518 2,784 2,177					
{ dollars... 392,352 246,220 290,480 205,020 184,116					
Iron and steel wire..... { tons 582 971 944 373 245					
{ dollars... 66,464 111,488 108,272 42,880 28,140					
Total iron..... { tons 207,809 177,451 209,595 177,102 207,009					
 { dollars... 12,808,792 9,314,804 10,701,776 7,267,612 7,210,540					
Lucifer matches..... { dollars... 955,162 1,157,760 1,892,796 1,731,816 1,582,540					
Machinery..... { dollars... 254,028 268,000 247,096					
Paper..... { pounds 5,592,400 6,498,800 7,482,200 10,300,400 8,784,600					
{ dollars... 622,296 684,204 769,964 1,094,512 962,204					
Wood-pulp..... { tons 7,420 6,160 5,667 11,509 6,763					
{ dollars... 425,316 352,966 324,816 373,056 387,528					
Steel..... { tons 4,518 8,198 6,900 5,813 7,074					
{ dollars... 627,656 1,187,124 889,760 732,980 780,416					
Wood:					
Deals and planks..... { dollars... 20,132,160 21,577,484 18,486,372 21,270,892 24,241,136					
Beams and rafters..... { dollars... 8,357,772 3,975,244 2,574,676 2,542,616 2,818,200					
Masts and spars..... { dollars... 803,196 735,680 631,944 2,434,512 2,207,516					
Pitprops..... { dollars... 879,309 837,500 496,300 825,708 736,732					
Staves..... { dollars... 215,472 247,496 210,916 240,664 280,328					
All other..... { dollars... 627,656 1,136,724 889,760 732,980 780,409					
Total wood..... { dollars... 28,015,565 28,510,108 23,289,968 28,047,372 30,564,321					
All other articles..... { dollars... 4,265,219 4,659,036 4,001,618 5,108,710 7,647,480					
TOTAL EXPORTS..... { dollars... 58,645,368 60,305,896 54,608,752 59,695,392 57,671,724					

SWEDEN—Continued.

and other articles exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
31, 894	80, 478	84, 241	19, 098	26, 492	46, 192	89, 076	-----
1, 940, 568	1, 004, 196	1, 185, 864	510, 856	1, 815, 844	2, 090, 244	1, 990, 704	-----
24, 381	23, 194	29, 591	21, 844	29, 104	81, 825	-----	-----
114, 168	128, 548	178, 120	107, 736	175, 540	188, 940	-----	-----
20, 761	14, 875	21, 644	24, 841	26, 212	28, 084	50, 107	-----
155, 708	160, 876	813, 920	358, 816	421, 564	451, 590	806, 412	-----
28, 360	87, 480	1, 647, 780	1, 764, 750	831, 270	121, 060	82, 079	-----
16, 248	21, 440	911, 788	1, 040, 108	100, 532	95, 676	68, 072	-----
8, 408, 400	10, 219, 000	11, 576, 400	11, 235, 400	12, 810, 600	17, 968, 600	21, 085, 246	-----
2, 168, 656	2, 842, 588	2, 819, 896	2, 636, 884	8, 120, 860	4, 375, 636	4, 612, 816	-----
249, 776	118, 632	167, 232	293, 192	1, 050, 136	777, 468	854, 028	-----
375, 200	489, 100	289, 440	200, 464	21, 172	59, 228	-----	-----
1, 315, 344	1, 541, 536	1, 370, 552	1, 011, 700	1, 199, 568	954, 884	678, 808	-----
8, 249, 040	8, 723, 986	8, 989, 624	6, 144, 972	6, 907, 700	7, 110, 808	4, 741, 724	-----
6, 161, 400	5, 086, 400	8, 924, 800	1, 379, 400	9, 794, 400	15, 109, 600	15, 988, 396	-----
230, 480	185, 992	142, 908	47, 168	357, 780	480, 156	427, 728	-----
30, 793	88, 016	67, 743	60, 940	62, 404	57, 544	60, 004	-----
494, 192	524, 186	1, 067, 712	891, 904	1, 045, 468	981, 416	1, 021, 090	-----
124, 711	121, 358	144, 340	150, 290	169, 182	186, 580	188, 275	-----
4, 467, 292	4, 173, 296	6, 204, 736	5, 491, 052	6, 182, 760	5, 856, 784	5, 041, 884	-----
10, 685	11, 539	9, 746	9, 689	8, 536	6, 551	8, 991	-----
275, 504	296, 944	307, 128	250, 692	311, 952	174, 200	249, 240	-----
87, 070	45, 951	53, 584	57, 164	59, 500	67, 778	79, 038	-----
1, 434, 068	1, 804, 476	2, 440, 944	2, 367, 512	2, 464, 260	2, 707, 300	3, 458, 004	-----
2, 104	1, 322	2, 197	2, 124	2, 555	2, 719	2, 942	-----
187, 332	129, 176	191, 688	249, 776	943, 092	1, 204, 928	631, 492	-----
508	630	1, 400	1, 738	3, 245	5, 837	2, 836	-----
58, 156	72, 360	160, 532	211, 720	395, 300	711, 004	844, 648	-----
205, 871	218, 816	279, 010	281, 963	305, 422	277, 009	292, 081	-----
6, 416, 544	6, 499, 388	10, 372, 940	9, 471, 656	11, 342, 632	11, 135, 632	10, 786, 848	-----
1, 335, 712	1, 364, 388	1, 837, 944	2, 003, 836	2, 079, 680	2, 242, 624	2, 326, 508	-----
276, 040	814, 096	679, 112	740, 216	692, 244	430, 408	646, 952	-----
12, 146, 200	15, 471, 400	15, 606, 800	11, 891, 000	13, 266, 000	14, 319, 800	14, 629, 729	-----
1, 263, 988	1, 675, 268	1, 706, 892	1, 861, 440	2, 205, 908	2, 283, 896	2, 386, 976	-----
5, 697	10, 804	10, 427	9, 909	10, 174	11, 172	11, 759	-----
326, 424	619, 348	597, 640	603, 268	619, 616	680, 452	814, 364	-----
5, 070	9, 402	8, 970	7, 887	10, 762	11, 976	10, 823	-----
568, 696	1, 077, 896	514, 024	2, 229, 852	603, 000	671, 072	1, 315, 881	-----
14, 999, 424	14, 638, 196	19, 585, 172	29, 078, 560	23, 526, 280	21, 286, 704	19, 004, 786	-----
1, 873, 232	1, 153, 740	1, 844, 912	1, 713, 824	2, 016, 432	1, 930, 136	1, 600, 496	-----
894, 400	915, 220	1, 159, 004	2, 007, 588	1, 062, 888	1, 640, 160	1, 259, 832	-----
456, 136	416, 472	630, 872	784, 052	600, 856	832, 140	721, 724	-----
225, 656	205, 020	281, 400	225, 756	253, 796	351, 080	258, 014	-----
568, 696	1, 077, 896	514, 024	2, 229, 852	603, 000	671, 072	-----	-----
18, 507, 544	18, 306, 544	24, 016, 284	25, 989, 132	28, 068, 852	26, 711, 292	23, 444, 802	-----
7, 246, 052	4, 968, 244	7, 273, 528	5, 741, 100	8, 990, 596	7, 976, 252	9, 063, 529	-----
49, 191, 668	49, 576, 516	63, 866, 456	59, 493, 856	69, 864, 424	68, 704, 748	68, 884, 652	-----

THE UNITED KINGDOM.

Value of the total imports from each

Countries.	1873.	1874.	1875.	1876.	1877.
<i>Continent of Europe.</i>					
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Russia.....	102,980,149	101,736,280	100,645,259	85,412,012	107,612,171
Sweden.....	87,615,156	41,230,063	32,865,935	38,746,491	38,198,686
Norway.....	14,322,580	14,142,576	10,478,640	13,033,461	12,610,062
Denmark.....	17,855,738	18,907,791	20,614,521	20,490,159	19,193,113
Germany.....	96,842,532	96,943,368	106,124,909	102,619,819	127,672,166
Holland.....	64,602,620	70,295,808	72,106,109	80,686,468	96,525,694
Belgium.....	63,545,404	73,187,484	72,036,086	67,302,704	62,615,142
France.....	210,628,677	226,080,255	227,056,691	220,181,500	222,701,355
Portugal, including the Azores.....	22,812,300	22,412,546	22,901,399	18,010,499	19,541,511
Spain.....	53,329,654	41,969,837	42,092,280	42,297,210	52,692,591
Italy.....	18,619,102	17,662,990	21,814,523	20,179,677	19,929,945
Austria-Hungary.....	4,225,444	3,885,784	6,895,800	4,150,178	7,489,163
Greece.....	8,440,085	7,468,872	8,564,783	8,744,972	11,926,445
Romania.....	4,978,263	2,973,081	2,867,608	6,017,122	1,201,900
Bulgaria.....					
Turkey in Europe.....	16,603,116	17,395,002	19,072,297	22,303,224	17,898,980
<i>Total from foreign countries.....</i>	<i>737,060,838</i>	<i>750,321,237</i>	<i>706,159,840</i>	<i>750,195,586</i>	<i>817,313,984</i>
British Possessions:					
Channel Islands.....	2,677,904	3,160,025	3,437,522	3,285,773	3,519,520
Gibraltar.....	451,518	400,289	544,360	242,601	340,385
Malta and Gozo.....	1,466,106	1,385,576	1,133,145	1,038,995	1,392,055
<i>Total from British Possessions.....</i>	<i>4,595,528</i>	<i>4,945,890</i>	<i>5,117,027</i>	<i>4,567,369</i>	<i>5,251,960</i>
TOTAL FROM EUROPE.....	741,656,366	761,267,127	711,276,867	754,762,955	822,565,944
<i>Continent of Africa.</i>					
French Possessions:					
Algeria.....	2,132,490	2,513,320	2,430,899	2,409,821	2,731,193
Réunion.....	63,666	123,983	23,148		82,037
Portuguese Possessions (West Africa).....	719,771	591,200	372,733	476,504	503,054
Spanish Possessions (Canaries and Fernando Po).....	2,360,914	2,006,777	2,196,846	1,422,663	1,547,463
Egypt.....	*68,797,737	51,101,918	52,949,909	55,800,182	53,954,675
Tripoli and Tunis.....	731,561	1,137,934	2,025,031	1,902,491	2,437,679
Morocco.....	4,423,611	3,397,932	3,456,889	3,049,422	4,482,066
Western coast (not particularly designated).....	8,556,069	8,866,424	8,024,205	7,765,133	7,441,875
Eastern Africa, Native States.....	336,380	204,480	314,573	399,157	712,155
Madagascar.....	9,900	53,732	237,994	27,036	9,428
<i>Total foreign.....</i>	<i>88,132,129</i>	<i>70,017,700</i>	<i>72,032,227</i>	<i>73,252,409</i>	<i>78,861,655</i>
British Possessions:					
Gambia and Sierra Leone.....	420,638	631,236	679,676	643,114	855,900
The Gold Coast.....	1,880,100	2,777,420	2,283,981	2,066,434	2,876,916
Cape Colony.....	17,388,166	18,160,590	18,101,857	17,779,027	17,304,025
Natal.....	2,639,481	3,210,166	3,665,588	2,696,115	3,474,409
Mauritius.....	6,191,203	5,074,976	4,006,687	4,552,587	9,190,410
<i>Total from British Possessions.....</i>	<i>28,519,588</i>	<i>29,854,388</i>	<i>28,737,739</i>	<i>28,237,227</i>	<i>33,701,660</i>
TOTAL FROM AFRICA.....	116,651,717	99,872,088	100,769,606	101,489,686	107,553,315

THE UNITED KINGDOM.

foreign country and British Possession.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 86,528,721 33,302,134	<i>Dollars.</i> 77,160,203 31,470,303	<i>Dollars.</i> 77,904,318 40,167,686	<i>Dollars.</i> 68,298,654 35,730,142	<i>Dollars.</i> 102,291,929 42,931,393	<i>Dollars.</i> 101,641,185 42,944,136	<i>Dollars.</i> 79,292,897 36,513,501	<i>Dollars.</i> 86,082,264 39,407,310
11,052,153 22,290,884	9,318,831 23,720,937	13,738,834 25,688,828	13,132,546 22,414,272	14,215,573 25,512,410	14,570,630 30,890,292	14,657,998 23,506,465	13,768,868 23,471,371
114,554,263 164,322,772	104,995,877 106,722,606	118,967,836 125,919,577	114,940,885 111,891,707	125,274,987 123,058,646	135,631,062 122,061,748	114,796,514 125,761,724	112,115,312 121,546,170
60,198,968 201,101,435	62,127,092 186,911,207	54,693,807 203,975,648	55,930,486 194,824,149	72,572,796 189,979,252	78,628,757 187,771,067	73,610,410 181,943,888	73,240,606 173,549,620
17,207,496 44,300,620	15,444,254 40,818,100	19,012,976 52,001,689	16,919,482 48,783,674	18,541,478 55,832,968	16,832,610 56,491,002	14,786,633 49,867,312	13,491,360 45,947,956
15,806,951 8,098,065	15,715,267 8,192,026	16,451,630 6,954,865	15,915,922 6,755,405	16,919,239 9,790,018	16,487,288 11,362,175	15,896,203 8,938,137	14,261,170 10,483,633
8,568,451 4,716,897	9,045,413 6,672,790	7,209,625 7,104,523	10,510,071 13,407,675	8,989,041 24,173,159	9,261,386 17,089,908	9,794,246 15,135,740	9,296,208 13,403,394
10,719,206	4,720,581	7,601,793	6,538,220	10,479,385	9,230,413	9,573,947	1,469,664 7,450,828
742,763,048	693,084,967	776,292,653	735,442,500	840,562,289	850,703,050	775,085,015	758,968,032
3,529,842 168,568	3,585,774 174,809	3,939,514 200,526	3,673,232 128,891	4,126,388 159,014	3,919,216 190,565	4,221,386 110,905	3,936,114 76,788
859,868	898,570	976,909	826,088	756,282	736,669	855,013	382,968
4,558,278	4,659,153	5,116,049	4,627,711	5,041,084	4,846,450	5,187,904	4,395,670
747,823,326	697,694,140	781,409,602	740,070,301	845,603,853	855,550,109	780,283,519	763,883,902
1,493,731 6,706	2,207,626 11,251	3,003,486	3,049,170	3,378,789 292	4,275,794 388,926	4,046,237 5,054	4,304,016 64,638
352,564	352,486	899,450	662,209	692,268	588,298	569,840	493,776
1,618,806 29,866,746	2,213,553 43,236,653	2,149,301 44,066,263	1,712,489 45,285,072	1,221,357 37,839,007	793,769 48,642,063	501,236 47,149,091	539,460 42,839,424
1,531,940 1,902,033	1,985,928 749,752	2,430,524 1,703,741	2,576,106 1,194,996	2,091,375 1,848,490	2,782,773 1,336,762	1,973,427 1,297,422	2,590,866 2,339,604
5,896,492 824,635	6,737,015 732,567	8,288,961 1,037,420	7,042,704 999,192	7,693,050 1,757,590	7,859,679 1,373,358	6,611,583 532,529	5,497,146 620,130
20,898	50,155	36,727	221,504	213,349	427,024	74,012	50,544
43,544,571	58,246,998	64,815,773	63,343,444	56,285,557	68,468,460	62,760,431	59,375,610
624,704 2,394,415	574,083 2,245,446	767,705 8,019,420	781,148 1,698,395	1,282,481 1,793,136	1,173,734 2,372,185	1,238,970 4,103,415	686,718 3,569,110
17,977,196 3,314,591	19,449,054 2,937,388	24,414,176 2,989,041	24,009,458 2,808,179	28,478,098 2,017,891	26,215,044 2,430,118	25,775,606 3,124,688	18,656,082 3,031,182
4,310,864	8,119,320	1,393,597	2,184,507	2,165,956	2,016,171	1,732,852	1,493,964
28,621,772	28,845,291	32,582,939	80,972,697	85,737,562	34,213,262	85,983,433	27,457,056
72,166,243	86,592,289	97,398,712	94,816,131	92,023,119	102,681,728	98,745,864	86,832,666

* Including the transit trade for India.

THE UNITED KINGDOM—Continued.

Value of the total imports from each foreign

Countries.	1873.	1874.	1875.	1876.	1877.
<i>Continent of America.</i>					
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United States	345,208,277	350,141,364	338,207,662	368,864,319	378,634,239
Mexico	1,990,828	2,656,724	3,508,468	3,217,902	3,883,445
Central America	6,620,035	8,447,448	6,361,200	4,542,992	6,709,866
Venezuela	4,235,852	4,741,416	4,676,316	3,314,097	2,294,022
Ecuador	475,172	245,649	180,181	266,707	309,771
United States of Colombia	1,546,262	1,445,388	1,137,143	1,188,353	902,944
Peru	25,867,120	21,875,895	21,785,120	27,365,056	22,825,000
Bolivia	3,751,157	1,665,216	2,245,218	2,007,758	1,829,557
Chili	23,163,988	22,844,479	20,393,027	17,421,146	15,939,867
Brazil	35,963,873	34,035,217	36,054,420	25,106,956	30,836,510
Uruguay	6,175,714	6,983,230	5,873,747	4,083,786	3,570,637
Argentine Republic	13,186,948	6,236,994	6,701,206	3,121,201	3,284,968
Danish West Indies	50,806	283,002	186,094	46,583	508,725
Dutch West Indies					
French West Indies	85,944	709,044	655,429	619,907	826,784
Spanish West Indies	24,830,999	18,295,893	17,830,251	14,904,851	7,315,491
<i>Total foreign</i>	493,650,973	480,608,949	463,795,482	480,636,674	484,670,786
British Possessions:					
Dominion of Canada	54,029,218	55,006,906	46,733,405	50,178,163	54,364,908
Newfoundland	2,968,143	2,537,391	2,900,147	3,897,514	4,079,898
Bermudas	18,249	22,774	22,618	20,707	45,830
West Indies	22,520,395	21,084,021	26,312,327	21,370,490	22,611,461
Guiana	8,941,010	8,993,299	9,292,242	12,135,979	11,090,564
Honduras	976,223	954,907	987,236	1,107,575	940,687
Falkland Islands	139,496	252,375	243,394	291,299	305,650
<i>Total from British Possessions</i>	89,601,729	88,941,673	86,491,369	88,501,787	93,838,998
TOTAL FROM AMERICA	583,252,702	575,550,622	552,286,851	569,038,461	578,509,784
<i>Continent of Asia.</i>					
China	60,527,577	54,169,118	66,132,848	72,510,915	65,225,623
Japan	2,728,855	2,809,741	1,836,061	3,193,725	3,589,179
Dutch India (Java)	2,119,752	6,376,024	7,011,070	6,909,681	9,504,119
French India	158,742	58,957	281,132	187,790	23,522
Spanish India (Philippine and Ladrones Islands)	6,901,244	6,891,323	7,579,170	7,010,822	8,533,839
Asiatic Turkey	12,031,859	10,998,229	12,788,472	13,874,255	15,002,265
Persia	53,410	495,998	215,445	308,046	720,709
All other (Siam, Cochin China, Tonquin, &c.)	510,505	431,257	381,758	761,747	107,091
<i>Total foreign</i>	85,631,450	82,230,637	96,205,962	104,763,011	103,676,947
British Possessions:					
India	145,269,298	151,624,448	146,467,254	145,921,617	151,752,348
Strait Settlements	16,836,396	12,659,590	15,305,647	9,923,858	13,227,924
Ceylon	21,048,699	17,498,391	21,290,790	16,292,129	21,893,094
Hong-Kong	3,807,603	3,631,834	5,612,963	6,594,291	9,211,207
<i>Total British Possessions</i>	186,961,996	185,414,263	188,676,554	177,671,895	196,054,573
TOTAL FROM ASIA	272,593,446	267,644,900	284,882,516	282,434,906	299,731,520
<i>Australasia.</i>					
Australasia	88,896,751	90,141,870	99,917,488	106,734,975	105,619,163
<i>Grand total from foreign countries</i>	1,404,475,890	1,395,178,523	1,400,193,461	1,408,747,680	1,479,518,372
<i>Grand total from British Possessions</i>	393,575,592	399,298,084	408,940,177	405,718,253	434,408,364
<i>Not designated</i>	6,405,646	4,125,830	8,212,706	8,790,924	3,899,929
GRAND TOTAL IMPORTS	1,804,456,628	1,798,601,927	1,817,346,344	1,823,256,857	1,916,879,655

THE UNITED KINGDOM—Continued.

country and British Possession—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
438,250,886	446,238,914	520,900,924	501,500,049	428,893,799	482,301,345	419,315,653	120,286,968
2,464,418	2,832,209	8,052,423	2,874,374	2,814,766	3,541,749	3,404,480	3,522,558
4,706,609	6,785,668	6,507,170	5,818,082	7,512,792	6,427,682	6,342,787	5,176,366
4,534,069	4,500,014	4,674,814	6,668,586	5,444,998	3,804,709	2,105,721	1,152,306
477,976	557,947	963,757	1,018,855	1,278,821	1,569,565	1,263,663	1,100,304
1,456,952	2,542,616	3,146,029	1,413,536	1,106,282	1,259,644	1,062,440	733,860
25,429,002	16,468,266	12,891,748	10,639,616	13,048,389	10,937,313	10,122,573	9,160,614
2,902,968	1,487,778	1,509,285	1,593,016	1,841,843	1,757,267	1,198,656	978,374
10,638,865	18,167,448	16,799,236	13,270,322	16,701,779	16,668,069	12,618,804	12,131,532
22,601,357	23,084,106	25,566,856	30,814,412	31,508,220	29,833,212	22,849,012	19,854,072
3,130,161	1,807,871	3,375,722	2,262,315	4,096,940	3,104,947	3,191,693	3,045,227
5,845,601	4,025,852	4,309,012	2,845,131	5,998,450	4,596,141	5,631,734	9,131,454
290,419	174,576	341,638	210,054	489,159	222,063	186,619	82,134
148,896	57,610	685	118,259	40,624	77,284	18,622	289,170
8,771,678	14,238,954	8,517,806	7,895,060	8,595,576	5,217,181	4,502,163	4,787,100
526,199,375	542,918,729	612,647,067	589,031,587	529,336,437	570,338,661	498,804,522	491,433,422
43,128,889	47,794,897	62,842,575	52,027,664	47,969,502	57,176,554	50,484,384	48,416,292
3,190,945	2,971,685	2,227,907	2,896,911	2,568,908	2,522,359	3,168,749	1,871,100
45,849	42,129	27,668	43,210	26,735	25,213	27,770	22,842
20,516,286	23,611,396	21,626,237	18,005,323	20,049,075	15,417,937	12,379,897	10,304,062
9,372,680	10,730,671	10,308,211	9,675,419	11,685,063	8,335,741	11,528,089	6,942,996
886,926	1,008,097	722,559	936,561	1,163,902	1,210,969	1,373,367	1,122,174
450,604	308,221	472,158	448,293	475,221	387,789	338,066	395,118
77,592,179	86,446,486	98,227,315	84,080,481	83,838,406	85,076,502	79,299,792	69,074,584
603,791,554	629,365,215	710,874,402	673,112,068	613,274,843	655,415,243	573,104,314	560,508,006
66,100,549	53,655,858	57,474,856	52,009,905	48,289,407	49,269,411	49,285,148	41,864,526
2,055,968	2,191,693	2,583,678	3,283,955	3,503,098	3,222,627	3,219,317	2,393,008
8,994,125	8,670,920	10,869,609	12,941,558	18,174,185	19,860,382	15,476,461	14,847,800
2,372	81,516	.....	7,873	120,104	196,067	86,836	88,936
6,112,612	7,188,790	8,206,902	11,393,804	11,212,588	8,116,599	5,555,928	4,763,236
12,507,234	12,160,439	11,27,208	13,727,561	14,002,692	17,330,940	16,962,644	15,297,822
842,520	849,536	888,644	402,165	513,700	777,947	498,233	381,510
11,411	264,642	2,254,292	267,969	96,563	361,681	1,822,801	953,046
97,626,816	84,513,294	93,005,189	94,034,880	94,912,407	99,155,624	92,907,390	80,591,436
133,506,499	120,033,339	146,373,382	158,579,054	194,016,672	188,966,549	167,417,921	154,949,922
12,330,616	12,667,654	17,970,453	18,391,903	22,261,225	22,563,058	22,416,322	21,569,092
14,261,964	17,345,170	16,457,753	10,813,661	11,703,064	10,569,497	11,502,307	11,612,970
5,707,919	6,449,633	6,092,209	4,936,380	6,948,580	5,695,852	5,114,188	4,706,424
165,747,018	156,495,796	186,893,797	192,219,098	234,929,541	227,786,956	206,450,948	192,858,408
263,373,884	241,009,090	279,898,986	286,253,978	329,841,948	326,942,580	299,358,338	273,449,844
101,355,402	106,747,178	124,723,803	131,100,852	122,348,498	126,049,987	137,569,967	113,360,958
1,416,135,810	1,378,704,006	1,546,760,702	1,481,852,501	1,521,096,670	1,588,066,436	1,424,567,968	1,390,388,500
377,874,048	382,093,904	447,544,803	443,000,329	481,995,691	477,973,167	464,514,067	407,146,876
4,215,948	2,742,003	4,370,184	4,676,467	4,182,983	6,053,476	6,408,210	5,368,885
1,792,225,807	1,764,140,518	1,968,575,689	1,929,529,297	2,007,275,294	2,074,693,073	1,895,490,245	1,802,904,261

THE UNITED KINGDOM—Continued.

Value of the total exports to each for

Countries.	1873.	1874.	1875.	1876.	1877.
<i>Continent of Europe.</i>					
<i>Russia:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Products of United Kingdom	43,728,924	42,653,683	39,160,287	30,048,593	20,308,195
Foreign and colonial products	12,880,899	15,011,600	15,073,518	11,920,691	10,037,514
Total	56,109,823	57,665,343	55,142,805	41,969,284	30,345,709
<i>Sweden:</i>					
Products of United Kingdom	15,310,570	16,479,531	13,612,875	13,186,060	11,922,795
Foreign and colonial products	7,114,559	6,074,322	6,750,891	7,852,973	7,041,076
Total	22,425,129	22,551,853	20,363,766	21,039,033	18,967,471
<i>Norway:</i>					
Products of United Kingdom	9,140,941	9,769,033	8,444,017	7,346,075	8,393,324
Foreign and colonial products	2,871,306	1,979,213	1,795,614	2,347,618	2,757,278
Total	11,512,247	11,748,246	10,239,631	9,693,693	11,152,602
<i>Denmark:</i>					
Products of United Kingdom	12,982,782	12,244,877	11,293,216	10,687,655	8,884,887
Foreign and colonial products	1,863,052	1,722,267	2,101,649	1,942,061	2,453,061
Total	14,845,784	13,967,144	13,394,865	12,629,716	11,337,948
<i>Germany:</i>					
Products of United Kingdom	132,533,862	120,567,252	113,179,111	97,599,703	95,460,742
Foreign and colonial products	45,873,914	50,192,967	52,051,981	46,910,771	43,237,876
Total	178,407,776	170,760,219	165,231,092	144,510,574	138,698,618
<i>Holland:</i>					
Products of United Kingdom	81,384,431	70,115,769	63,756,038	57,237,153	46,725,921
Foreign and colonial products	38,066,096	33,351,817	34,000,978	33,702,755	31,192,642
Total	119,450,527	103,467,626	97,757,016	90,939,908	77,918,563
<i>Belgium:</i>					
Products of United Kingdom	34,998,612	28,324,527	28,100,219	28,554,478	25,777,950
Foreign and colonial products	34,163,631	33,170,715	38,942,363	33,828,737	31,374,903
Total	69,162,243	61,495,242	67,042,582	62,383,215	57,152,853
<i>France:</i>					
Products of United Kingdom	84,038,114	79,559,531	74,635,637	78,176,089	59,172,856
Foreign and colonial products	62,714,388	64,272,189	58,010,554	62,763,237	55,551,550
Total	146,752,502	143,831,711	132,646,191	140,941,326	114,724,406
<i>Portugal:</i>					
Products of United Kingdom	14,259,240	13,569,387	12,995,001	11,248,180	11,374,738
Foreign and colonial products	2,008,798	2,093,324	2,565,910	1,974,180	3,474,907
Total	16,268,038	15,662,711	15,561,001	13,222,360	14,849,645
<i>Spain:</i>					
Products of United Kingdom	18,159,973	19,752,163	16,671,467	19,402,894	17,075,407
Foreign and colonial products	3,845,217	4,694,333	4,199,832	3,908,086	3,063,253
Total	22,005,190	24,446,496	20,871,319	23,310,980	20,738,660
<i>Italy:</i>					
Products of United Kingdom	36,178,788	30,956,300	32,886,152	32,510,494	30,222,454
Foreign and colonial products	5,479,611	6,775,010	6,820,553	6,952,881	5,493,324
Total	41,658,399	37,731,310	39,706,705	39,463,375	35,717,778
<i>Austria-Hungary:</i>					
Products of United Kingdom	7,213,793	5,169,334	4,854,755	3,813,321	5,092,101
Foreign and colonial products	1,609,306	1,809,004	1,362,160	1,587,971	1,782,254
Total	8,823,101	6,978,338	6,216,915	5,401,292	6,844,415
<i>Greece:</i>					
Products of United Kingdom	4,828,755	4,910,121	4,560,896	4,011,885	4,212,991
Foreign and colonial products	554,067	791,519	1,016,843	651,920	578,058
Total	5,383,422	5,701,640	5,577,739	4,663,805	4,790,959
<i>Romania:</i>					
Products of United Kingdom	5,246,239	6,050,073	5,126,056	3,438,780	958,747
Foreign and colonial products	446,671	584,984	527,247	385,252	195,129
Total	5,692,910	6,635,057	5,653,303	3,824,032	1,153,876
<i>Turkey in Europe:</i>					
Products of United Kingdom	24,150,997	22,516,497	17,643,574	16,424,001	14,751,539
Foreign and colonial products	1,360,081	1,725,392	1,832,876	1,710,010	1,465,133
Total	25,511,078	24,241,889	19,476,450	18,134,011	16,156,672
<i>Total to foreign countries:</i>					
Products of United Kingdom	524,155,073	482,638,078	416,498,391	413,483,401	370,906,647
Foreign and colonial products	210,832,236	223,246,747	228,532,193	218,439,174	201,203,556
Total	744,008,209	705,884,825	644,990,586	631,924,575	572,110,204
<i>British Possessions.</i>					
<i>Channel Islands:</i>					
Products of United Kingdom	3,429,664	3,967,817	3,115,503	2,845,972	2,009,050
Foreign and colonial products	770,200	803,893	729,622	828,747	893,083
Total	4,195,270	4,771,710	3,845,125	3,674,719	2,902,133
<i>Gibraltar:</i>					
Products of United Kingdom	5,820,788	5,516,070	4,710,419	5,447,404	4,024,152
Foreign and colonial products	401,402	480,410	690,028	420,760	328,264
Total	6,212,250	5,997,386	5,400,447	5,868,164	4,352,416

THE UNITED KINGDOM—Continued.

sign country and British Possession.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
81,879,082	87,152,897	88,647,818	29,962,323	28,051,176	21,477,944	24,208,983	20,662,290
14,576,340	14,397,526	14,654,814	15,127,074	13,937,404	12,603,287	13,611,899	9,667,512
46,455,422	51,550,423	53,302,132	45,089,397	41,088,580	87,031,231	37,880,382	30,329,802
8,195,442	6,804,413	9,438,435	10,115,171	11,336,781	11,933,662	11,433,500	10,586,538
5,170,437	4,762,372	6,205,001	5,627,073	5,113,774	5,478,206	5,554,014	5,981,202
13,365,899	11,566,785	15,643,450	15,742,244	16,450,555	17,411,868	16,987,514	16,567,740
5,406,234	5,278,791	6,092,763	6,220,251	6,783,141	6,868,812	7,310,840	6,400,146
2,244,105	2,247,818	3,207,284	2,518,471	2,074,763	1,019,442	1,078,547	1,775,814
7,650,359	7,526,609	9,300,047	8,738,722	8,857,904	8,788,254	8,939,387	8,244,930
7,417,828	8,008,634	9,232,643	9,774,801	10,535,226	11,012,561	10,681,852	9,240,066
1,816,537	1,870,848	2,176,862	2,040,797	1,862,198	1,612,781	1,957,024	1,707,830
9,234,365	9,888,482	11,409,505	11,815,598	11,897,424	12,625,342	12,638,876	10,554,920
94,461,943	90,354,949	82,346,382	81,716,791	89,097,598	91,307,908	91,024,247	79,781,760
47,202,628	53,616,643	58,865,026	57,569,008	58,352,212	63,149,793	58,610,890	51,728,868
141,664,571	143,971,552	141,211,402	142,285,802	148,349,810	154,457,701	148,635,137	131,510,628
45,213,017	45,456,314	44,738,876	43,251,633	45,585,522	46,200,356	49,758,418	43,147,560
26,112,950	29,584,076	31,141,335	30,972,372	33,399,704	30,941,716	38,811,572	33,881,004
71,323,967	75,040,351	75,880,210	74,224,005	78,985,226	77,142,072	88,597,900	77,038,570
26,854,926	24,817,488	28,168,677	34,385,176	39,270,346	40,473,793	41,312,417	37,038,104
28,333,139	32,955,490	34,950,233	31,406,807	34,199,348	31,235,585	30,519,920	29,500,650
55,188,065	57,772,968	63,118,910	65,791,983	73,469,681	71,709,358	71,833,337	67,439,790
72,048,941	72,845,845	75,789,265	82,474,321	81,667,090	85,378,108	81,387,300	72,797,940
57,207,415	56,227,653	60,246,796	63,741,991	59,938,865	57,405,459	60,022,093	59,080,714
129,236,356	129,073,498	136,036,061	146,216,312	144,625,855	142,783,567	128,009,393	111,878,658
10,284,217	9,229,330	10,283,576	10,171,485	9,510,574	9,536,224	9,569,864	8,487,018
2,424,416	2,560,404	2,418,550	2,173,163	1,993,905	2,004,293	2,031,742	1,723,356
12,708,633	11,765,794	12,652,126	12,344,628	11,504,379	11,540,517	11,601,626	10,210,374
15,605,100	14,289,314	15,659,027	17,761,895	17,834,843	18,395,265	18,801,070	15,397,452
2,837,307	3,964,051	4,162,954	3,692,575	5,725,294	5,303,276	4,287,535	3,628,470
18,442,407	18,273,365	19,821,981	21,333,970	23,539,637	23,698,541	23,088,358	19,035,928
26,008,252	24,220,565	26,403,933	32,225,075	31,494,054	34,612,667	33,091,394	32,208,193
5,248,936	5,132,656	4,874,544	4,810,212	4,798,988	5,214,173	5,194,616	4,089,268
81,317,188	29,853,221	30,778,477	36,536,187	30,288,040	39,826,840	39,186,010	36,294,480
3,708,345	3,883,553	2,884,706	3,371,256	3,421,254	4,702,191	4,582,159	3,831,624
1,586,003	1,203,086	1,144,092	963,157	2,012,550	2,807,773	2,263,788	1,612,191
5,294,348	5,088,639	4,028,798	4,336,413	5,433,804	7,509,964	6,845,947	5,473,818
4,772,699	4,589,873	3,967,760	5,540,555	5,227,080	6,263,937	5,777,101	4,270,482
720,101	666,311	473,996	664,435	719,400	746,389	757,975	457,813
5,492,800	5,255,684	4,461,765	6,208,930	5,940,880	7,010,328	6,535,076	4,728,265
4,311,734	4,845,799	5,408,018	6,428,016	4,726,637	6,525,089	4,609,822	3,848,034
549,117	487,720	420,395	504,891	267,689	290,735	351,397	266,329
4,860,851	5,333,519	5,828,413	6,932,907	4,944,326	6,815,824	4,901,219	4,114,963
20,221,323	20,207,516	18,801,741	17,878,020	17,070,750	16,618,722	16,502,444	15,082,038
1,964,417	1,766,518	1,720,937	1,820,211	1,850,086	2,452,176	2,353,581	2,430,664
22,185,740	21,974,034	20,522,678	19,698,231	18,920,836	19,070,898	18,856,025	17,518,642
876,448,103	871,994,741	377,833,648	394,277,152	405,511,532	414,397,227	411,010,431	363,758,450
197,993,868	211,480,207	226,162,813	223,048,237	225,761,475	223,165,076	214,636,113	187,562,033
574,442,971	583,464,948	603,995,961	617,315,389	631,273,007	637,472,303	625,046,544	551,821,803
2,603,001	2,910,338	2,834,626	3,120,917	2,811,442	2,785,538	2,668,385	2,488,320
963,626	1,041,648	1,128,157	901,999	1,015,062	979,416	920,098	855,932
3,566,627	3,951,986	3,062,783	4,112,916	3,827,104	3,714,954	3,909,083	3,444,282
3,451,898	3,293,559	3,751,249	3,515,286	3,557,680	3,521,677	3,840,959	3,037,500
329,425	301,213	280,961	373,025	470,808	370,104	474,404	409,880
8,781,823	3,594,772	4,032,210	3,868,311	4,037,438	3,891,785	3,870,363	3,477,339

THE UNITED KINGDOM—Continued.

Value of the total exports to each foreign

Countries.	1873.	1874.	1875.	1876.	1877.
<i>British Possessions—Continued.</i>					
<i>Malta and Gozo:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Products of United Kingdom	4,807,388	3,994,828	3,384,242	4,346,055	3,982,162
Foreign and colonial products	731,863	854,344	795,213	803,936	815,848
Total	5,539,249	4,849,172	4,179,455	5,149,991	4,798,010
<i>Total to British Possessions:</i>					
Products of United Kingdom	14,067,238	13,479,615	11,210,164	12,639,432	10,795,364
Foreign and colonial products	1,797,531	2,138,633	2,214,883	2,053,448	2,037,195
Total	15,864,769	15,618,248	13,425,027	14,692,875	12,742,559
<i>TOTAL TO EUROPE:</i>					
Products of United Kingdom	538,223,211	496,117,693	457,638,555	426,124,823	381,612,011
Foreign and colonial products	221,649,867	225,385,400	230,667,058	220,492,617	203,240,751
Grand total	759,873,078	721,503,093	688,305,613	646,617,450	584,852,762
<i>Continent of Africa.</i>					
<i>French Possessions:</i>					
Products of United Kingdom	401,951	320,361	836,843	1,113,411	1,502,465
Foreign and colonial products	6,361	18,842	51,846	18,274	47,434
Total	408,312	339,203	888,689	1,131,685	1,550,899
<i>Portuguese Possessions:</i>					
Products of United Kingdom	2,862,054	2,054,123	1,190,039	1,002,817	1,053,274
Foreign and colonial products	131,084	94,328	120,899	156,750	149,332
Total	2,993,138	2,148,456	1,310,938	1,159,576	1,202,626
<i>Spanish Possessions:</i>					
Products of United Kingdom	897,812	960,979	708,271	719,334	835,821
Foreign and colonial products	391,150	125,208	95,572	55,248	60,327
Total	1,288,962	1,086,187	803,843	774,582	896,148
<i>Egypt:</i>					
Products of United Kingdom	*30,238,983	17,423,615	14,316,812	12,788,778	11,048,292
Foreign and colonial products	488,177	433,284	459,529	276,996	260,773
Total	30,727,160	17,856,899	14,776,341	13,065,774	11,309,065
<i>Tripoli and Tunis:</i>					
Products of United Kingdom	313,975	495,686	595,627	321,231	183,047
Foreign and colonial products	55,988	112,839	100,247	62,718	51,973
Total	369,963	608,525	695,874	383,949	235,020
<i>Morocco:</i>					
Products of United Kingdom	1,525,024	2,155,002	1,684,161	1,925,906	1,908,909
Foreign and colonial products	250,645	339,451	381,082	333,925	332,204
Total	1,775,669	2,494,453	2,065,243	2,259,831	2,261,203
<i>West Coast:</i>					
Products of United Kingdom	4,632,435	3,702,990	3,365,151	4,215,370	4,989,845
Foreign and colonial products	1,361,378	1,304,774	1,213,785	1,230,953	1,381,047
Total	6,013,813	5,007,764	4,578,936	5,446,325	6,370,892
<i>East Coast:</i>					
Products of United Kingdom	89,458	141,717	626,289	439,548	495,151
Foreign and colonial products	14,604	62,684	19,192	59,112	6,347
Total	104,062	204,401	645,481	498,660	501,498
<i>Madagascar:</i>					
Products of United Kingdom	125,748	45,281	23,586	108,125	114,847
Foreign and colonial products	1,516	733	1,813	5,152	5,715
Total	127,264	46,014	25,399	113,277	120,562
<i>Total to foreign countries:</i>					
Products of United Kingdom	41,087,440	27,299,759	23,326,679	22,629,520	22,127,741
Foreign and colonial products	2,660,903	2,492,173	2,423,958	2,219,139	2,315,172
Total	43,748,343	29,791,932	25,750,637	24,848,659	24,442,913
<i>British Possessions.</i>					
<i>Gambia and Sierra Leone:</i>					
Products of United Kingdom	1,532,241	1,812,099	1,336,918	990,351	1,360,849
Foreign and colonial products	216,562	230,539	256,812	221,567	196,670
Total	1,748,803	2,042,638	1,593,730	1,211,918	1,566,519
<i>The Gold Coast:</i>					
Products of United Kingdom	1,877,467	2,333,908	2,347,599	2,506,365	2,567,616
Foreign and colonial products	164,513	154,412	201,977	186,478	201,408
Total	2,043,980	2,488,320	2,549,576	2,692,843	2,769,024
<i>South Africa—Cape Colony and Natal:</i>					
Products of United Kingdom	21,070,340	20,857,958	23,861,900	21,232,567	20,002,273
Foreign and colonial products	1,509,059	1,945,498	2,141,102	1,530,059	1,881,039
Total	22,579,399	22,803,456	26,003,002	22,762,626	21,883,312
<i>Mauritius:</i>					
Products of United Kingdom	2,823,000	2,622,428	1,718,724	1,663,330	2,334,216
Foreign and colonial products	158,310	337,474	126,462	106,035	514,154
Total	2,981,310	2,959,902	1,845,186	1,769,365	2,848,370

*Transit trade to India included.

THE UNITED KINGDOM—Continued.

country and British Possession.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
5,641,707	3,785,192	4,013,480	4,542,691	4,883,444	4,801,816	4,897,650	4,992,678
1,022,860	901,511	895,537	984,048	920,173	832,207	673,280	734,732
6,664,567	4,686,703	4,909,017	5,526,739	5,803,617	5,634,023	5,570,930	5,727,410
11,696,066	9,930,089	10,599,353	11,178,894	11,252,566	11,059,081	11,281,994	10,518,498
2,315,911	2,244,372	2,304,675	2,329,072	2,415,643	2,181,731	2,068,887	2,130,524
14,012,517	12,183,461	12,904,030	13,507,966	13,668,209	13,240,762	13,350,881	12,649,022
388,145,709	381,923,830	388,438,003	405,458,036	416,764,098	425,866,268	422,292,425	374,277,348
200,809,779	213,724,579	228,466,984	225,367,309	228,177,118	225,346,797	216,704,500	189,693,477
588,455,488	595,648,409	616,899,991	630,823,345	644,941,216	650,718,065	638,996,925	563,970,825
1,639,675	1,445,223	1,788,717	1,969,602	2,039,669	2,449,440	3,182,586	2,852,306
49,703	63,107	102,313	131,083	87,490	98,697	94,881	58,848
1,689,878	1,508,330	1,891,030	2,100,685	2,127,129	2,548,137	3,276,967	2,910,654
999,921	1,361,918	1,635,142	1,995,385	1,986,146	2,196,458	4,909,917	2,151,522
79,796	185,235	143,477	103,675	181,672	253,954	206,840	116,808
1,079,717	1,497,153	1,778,619	2,099,060	2,117,818	2,450,412	5,114,757	2,262,330
857,876	890,797	1,045,721	965,287	646,147	980,635	864,419	960,822
129,503	274,041	237,780	138,126	54,014	65,149	97,553	61,236
986,079	1,154,838	1,283,501	1,123,418	700,161	1,045,968	966,972	1,022,058
10,632,866	10,418,290	14,876,716	15,396,852	11,909,449	16,965,078	14,061,977	16,920,090
340,905	317,501	556,081	894,924	825,787	652,178	933,108	1,068,228
11,069,891	10,735,791	15,432,791	16,233,776	12,735,236	17,017,251	14,966,080	17,988,318
227,686	278,930	429,883	461,841	895,751	833,281	476,620	413,100
46,884	6,512	11,852	6,823	23,216	48,357	34,506	30,182
274,420	285,442	441,235	468,664	918,967	881,638	511,126	443,223
929,679	1,190,880	1,200,342	1,313,619	1,023,929	1,256,206	1,419,185	2,076,678
841,820	838,066	263,198	276,980	655,522	283,484	590,282	655,614
1,771,499	1,628,046	1,468,530	1,584,549	1,679,451	1,639,062	1,968,417	2,732,292
5,049,399	3,192,544	3,657,641	4,006,278	4,255,051	6,064,566	5,407,430	3,772,818
1,196,409	973,832	1,029,130	884,821	968,447	1,190,497	1,009,412	1,011,852
6,245,806	4,165,876	4,686,761	4,890,599	5,223,498	7,255,068	6,416,842	4,784,670
630,956	2,195,418	762,323	706,804	757,878	1,124,984	384,600	966,580
30,785	33,539	48,098	25,408	21,175	28,059	16,058	24,300
686,841	2,228,967	806,423	732,212	779,053	1,147,998	410,728	1,016,890
105,029	74,975	241,105	224,969	179,481	187,618	6,862	32,562
3,470	3,630	7,071	25,408	31,175	8,179	267	496
108,499	78,005	248,176	650,397	200,606	190,192	7,129	33,048
29,601,857	21,088,975	25,632,596	27,062,657	23,643,451	31,457,818	30,723,686	30,166,478
2,724,272	2,144,963	2,393,480	2,420,698	2,838,467	2,618,528	2,684,832	3,021,004
23,226,129	23,189,988	28,026,066	29,483,355	26,481,918	34,076,841	33,408,018	33,187,482
1,763,296	1,525,457	1,596,750	1,367,614	1,550,957	1,612,090	1,779,542	1,088,098
339,174	277,725	290,108	176,462	203,916	208,702	183,004	172,530
2,012,880	1,602,182	1,888,658	1,544,076	1,754,873	2,020,792	1,967,546	1,216,628
2,496,463	2,091,161	2,246,528	1,757,434	2,303,460	2,845,672	2,711,151	2,197,208
223,992	216,949	260,276	159,952	197,899	134,063	179,830	253,308
2,710,455	2,310,104	2,446,804	1,917,386	2,501,359	2,479,035	2,890,961	2,450,412
23,873,657	28,446,760	32,236,781	34,874,688	36,428,392	22,145,900	19,987,096	18,585,128
2,651,917	2,511,638	2,890,915	3,013,127	2,858,816	2,155,250	2,094,046	1,740,866
26,630,574	30,957,598	35,021,646	37,887,816	39,287,208	24,801,210	23,081,132	20,325,492
1,989,451	1,658,509	1,740,658	2,181,994	2,392,704	2,461,218	1,887,323	1,278,186
107,892	122,830	133,971	209,422	264,687	860,290	193,204	149,686
2,097,843	1,781,889	1,874,629	2,341,416	2,657,341	2,621,514	2,080,527	1,427,868

THE UNITED KINGDOM—Continued.

Value of the total exports to each foreign

Countries.	1875.	1874.	1875.	1876.	1877.
<i>British Possessions—Continued.</i>					
<i>Total to British Possessions:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Products of United Kingdom	27,808,048	27,628,898	26,595,141	26,392,613	26,333,954
Foreign and colonial products	2,050,444	2,667,923	2,726,853	2,044,189	2,793,271
Total	29,858,492	30,296,816	29,321,994	28,436,802	29,127,225
<i>TOTAL TO AFRICA:</i>					
Products of United Kingdom	68,395,488	54,926,152	52,501,820	49,022,133	48,461,012
Foreign and colonial products	4,711,247	5,160,096	5,150,806	4,263,278	5,108,442
Total	73,106,835	60,086,248	57,652,626	53,285,411	53,569,454
<i>Continent of America.</i>					
<i>United States:</i>					
Products of United Kingdom	163,172,867	137,255,192	106,279,835	81,810,893	79,591,316
Foreign and colonial products	15,181,474	19,423,048	15,522,682	16,490,515	17,054,124
Total	178,354,341	156,678,240	121,802,517	98,301,408	96,645,440
<i>Mexico:</i>					
Products of United Kingdom	5,803,443	5,465,619	4,900,619	2,440,809	4,838,179
Foreign and colonial products	902,740	963,558	465,661	362,507	370,356
Total	6,706,183	6,429,177	4,766,280	2,803,316	5,208,535
<i>Central America:</i>					
Products of United Kingdom	1,608,111	763,399	4,114,734	3,478,458	4,521,005
Foreign and colonial products	209,281	89,395	140,688	107,945	205,471
Total	1,817,392	852,794	4,255,422	3,586,403	4,726,476
<i>United States of Colombia:</i>					
Products of United Kingdom	14,944,364	12,494,827	4,467,035	3,866,369	4,432,855
Foreign and colonial products	127,502	103,051	111,552	61,747	94,611
Total	15,071,866	12,597,878	4,578,587	3,928,116	4,527,466
<i>Venezuela:</i>					
Products of United Kingdom	2,564,160	2,461,213	3,564,239	3,360,732	3,011,940
Foreign and colonial products	63,113	104,991	155,598	60,678	68,030
Total	2,627,273	2,566,204	3,719,837	3,361,410	3,079,970
<i>Ecuador:</i>					
Products of United Kingdom	493,970	318,644	632,796	1,094,827	1,224,112
Foreign and colonial products	87,630	10,774	16,106	19,289	18,191
Total	581,600	329,418	648,902	1,114,116	1,242,303
<i>Peru:</i>					
Products of United Kingdom	12,269,663	7,743,248	7,749,265	4,817,737	6,104,515
Foreign and colonial products	1,052,836	1,150,440	1,086,123	865,760	751,636
Total	13,322,499	8,893,688	8,835,388	5,683,497	6,856,151
<i>Bolivia:</i>					
Products of United Kingdom	367,027	264,292	467,960	968,573	471,119
Foreign and colonial products	32,366	97,312	73,838	112,110	152,091
Total	399,423	361,604	541,798	1,080,683	623,213
<i>Chili:</i>					
Products of United Kingdom	15,382,405	13,370,317	10,728,051	9,515,544	7,296,804
Foreign and colonial products	704,690	687,180	663,545	580,279	533,463
Total	16,087,095	14,057,497	11,391,596	10,095,823	7,830,267
<i>Brazil:</i>					
Products of United Kingdom	36,667,091	37,317,282	33,885,726	28,770,218	28,959,063
Foreign and colonial products	1,613,160	1,787,007	1,472,167	1,558,711	2,173,936
Total	38,280,251	39,104,289	35,357,893	30,328,929	31,133,019
<i>Uruguay:</i>					
Products of United Kingdom	8,563,524	5,948,825	3,469,214	4,890,652	5,238,019
Foreign and colonial products	509,284	838,373	215,122	171,180	261,254
Total	9,072,808	6,787,198	3,684,336	5,061,832	5,499,274
<i>Argentine Republic:</i>					
Products of United Kingdom	18,123,377	15,202,770	11,595,970	7,501,566	10,167,606
Foreign and colonial products	394,374	311,997	503,366	262,275	446,794
Total	18,517,751	15,514,767	12,109,336	7,763,841	10,614,400
<i>Danish West Indies:</i>					
Products of United Kingdom	1,680,999	1,656,235	1,844,487	1,250,643	1,095,303
Foreign and colonial products	89,230	53,490	77,089	74,888	55,001
Total	1,770,229	1,709,725	1,921,576	1,325,531	1,150,304
<i>Dutch West Indies and Guiana:</i>					
Products of United Kingdom .....	.....	.....	.....	.....	.....
Foreign and colonial products .....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....
<i>French Possessions:</i>					
Products of United Kingdom	230,806	307,920	721,008	562,788	875,187
Foreign and colonial products	18,857	22,875	123,536	343,612	389,675
Total	249,663	330,795	844,544	906,400	1,264,862
<i>Spanish West Indies:</i>					
Products of United Kingdom	18,874,865	9,028,752	12,296,881	9,793,449	10,904,727
Foreign and colonial products	1,955,703	2,258,464	1,784,050	2,708,308	2,290,994
Total	15,830,668	11,287,216	14,080,931	12,501,757	13,195,721

THE UNITED KINGDOM—Continued.

country and British Possession—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
30,107,777	33,720,887	37,800,067	39,631,725	42,675,513	43,764,840	46,815,102	43,098,608
3,242,975	3,131,866	3,425,270	3,558,963	3,524,263	3,858,811	2,655,084	2,815,790
33,350,752	36,852,753	41,225,337	43,190,688	46,200,781	32,623,151	23,970,186	25,414,398
50,609,634	54,750,862	63,432,253	66,694,832	66,313,964	60,222,653	57,038,788	53,265,088
5,967,247	5,276,849	5,818,750	5,979,661	6,362,735	6,476,639	5,339,466	5,339,794
50,576,881	60,036,211	69,232,003	72,674,043	72,682,699	66,690,492	62,373,204	58,601,880
70,723,089	98,764,871	150,251,133	144,810,008	150,514,914	133,032,624	118,713,451	111,749,868
14,481,964	23,256,443	34,499,326	33,955,600	37,609,091	45,487,855	40,395,819	39,369,402
85,205,053	124,021,314	184,750,459	178,765,608	188,124,005	178,519,979	159,109,270	151,119,270
3,753,339	3,868,578	5,956,256	7,801,787	9,048,590	7,544,120	4,946,829	3,868,500
420,959	350,581	279,509	379,785	406,962	330,145	317,295	343,602
4,179,848	3,719,159	6,235,765	8,181,572	9,513,522	7,874,265	5,204,124	4,212,162
3,557,007	3,511,972	3,200,193	4,573,979	3,612,759	4,078,468	4,346,779	3,258,144
105,726	125,869	111,109	126,068	135,390	102,739	148,098	110,372
3,723,333	3,637,841	3,811,902	4,700,047	3,748,149	4,181,257	4,465,472	3,368,466
5,044,447	4,287,443	5,053,457	5,765,977	4,940,715	5,814,101	5,639,082	3,208,086
82,450	107,435	166,241	225,786	348,870	297,548	297,548	189,128
5,126,897	4,394,878	5,219,698	5,991,763	5,288,686	6,091,267	5,936,630	3,377,214
2,800,146	2,245,500	2,080,770	2,344,916	2,283,682	3,105,739	2,916,972	1,641,222
49,423	39,599	42,248	39,806	18,449	16,208	26,905	61,722
2,349,572	2,285,099	2,123,018	2,384,224	2,304,131	3,121,947	2,943,877	1,702,944
972,539	1,870,447	1,712,241	1,228,623	1,145,531	825,894	1,880,626	628,884
50,053	74,640	74,562	83,945	68,176	56,400	67,689	48,254
1,023,562	1,445,067	1,780,903	1,267,571	1,218,707	882,294	1,918,315	672,138
6,637,379	3,632,495	1,520,247	3,983,237	4,783,482	3,570,044	5,252,950	3,422,412
1,074,910	785,298	325,557	680,940	892,549	742,258	808,135	572,022
7,732,289	4,417,793	1,845,804	4,594,177	5,678,031	4,812,902	6,061,085	3,994,434
356,700	259,898	383,595	516,919	440,331	403,606	263,728	312,408
45,830	30,424	50,340	57,996	53,825	62,922	84,487	52,974
402,530	290,322	433,935	574,856	498,656	466,530	296,215	365,472
5,787,740	4,182,390	9,328,546	12,253,455	14,579,281	10,011,061	10,155,650	6,827,814
495,836	479,443	1,195,636	804,607	740,480	706,896	595,525	711,504
6,283,076	4,611,819	10,524,082	13,057,962	15,819,741	10,717,947	10,751,175	7,589,818
27,108,847	27,629,382	32,473,188	32,349,623	33,415,838	32,811,564	31,451,801	25,646,968
3,019,319	1,462,686	1,135,748	1,253,967	2,185,211	1,783,954	1,543,920	1,427,506
30,128,166	29,091,998	33,608,936	33,608,590	35,601,049	34,094,518	32,995,721	27,273,874
4,849,726	4,483,958	6,713,254	6,769,847	7,071,393	6,253,697	7,693,200	6,836,542
181,176	219,565	165,327	113,684	143,448	200,728	210,754	181,298
5,030,902	4,703,623	6,878,581	6,882,881	7,215,241	6,454,425	7,903,954	7,017,840
11,260,805	10,027,414	11,909,799	10,236,861	20,250,244	23,833,838	23,240,055	22,650,030
379,872	409,615	440,506	358,945	480,017	711,232	620,855	486,972
11,640,677	10,437,039	12,350,305	10,595,906	20,730,261	24,545,070	28,990,910	23,187,602
1,153,907	973,205	981,506	890,789	975,611	902,463	713,758	589,400
74,397	71,340	76,730	47,915	35,954	29,106	31,944	23,814
1,230,304	1,044,545	1,058,236	983,704	1,011,665	931,569	750,702	563,274
.....	.....	.....	.....	.....	.....	.....	698,868
.....	.....	.....	.....	.....	.....	.....	18,468
.....	.....	.....	.....	.....	.....	.....	717,836
904,519	890,744	765,610	827,041	875,898	1,319,573	1,023,633	828,613
320,517	362,247	507,602	256,798	122,540	157,653	253,449	136,083
1,225,066	1,261,991	1,273,212	1,083,839	968,433	1,477,236	1,256,082	964,716
9,185,206	8,609,626	7,141,716	10,645,718	11,176,289	10,917,042	6,638,828	7,104,831
3,177,381	3,228,799	3,996,713	3,037,058	4,047,466	4,034,567	3,808,340	3,713,526
12,862,587	11,838,425	11,138,429	13,682,776	15,223,755	14,951,629	10,447,168	10,818,360

THE UNITED KINGDOM—Continued.

Value of the total exports to each foreign

Countries.	1873.	1874.	1875.	1876.	1877.
<i>Continent of America—Continued.</i>					
Hayti and San Domingo:	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Products of United Kingdom.....	2,063,892	2,147,887	3,869,889	1,742,232	1,862,166
Foreign and colonial products.....	187,689	87,638	109,802	106,410	69,691
Total.....	2,251,581	2,235,525	3,979,691	1,848,642	1,931,857
Total to foreign countries:					
Products of United Kingdom.....	297,909,564	251,744,522	208,949,869	185,745,390	170,594,913
Foreign and colonial products.....	23,084,956	27,686,978	22,525,805	22,940,177	24,888,480
Total.....	320,994,520	279,431,499	231,475,674	198,685,567	195,483,393
<i>British Possessions.</i>					
Dominion of Canada:					
Products of United Kingdom.....	39,427,970	43,009,770	40,893,521	33,547,234	34,022,036
Foreign and colonial products.....	3,350,586	4,928,584	2,841,537	2,835,513	2,535,536
Total.....	42,778,556	47,938,354	43,735,058	36,382,747	36,557,572
Newfoundland:					
Products of United Kingdom.....	2,458,936	2,344,828	3,025,272	2,212,380	2,979,802
Foreign and colonial products.....	314,199	345,405	293,008	408,438	294,190
Total.....	2,773,135	2,690,233	3,318,280	2,620,819	3,263,992
West Indies:					
Products of United Kingdom.....	12,201,351	11,002,641	9,921,413	10,863,573	9,954,680
Foreign and colonial products.....	1,110,991	981,889	1,191,934	1,204,618	891,897
Total.....	13,312,342	11,984,530	11,113,347	12,068,191	10,846,577
Guliana:					
Products of United Kingdom.....	3,987,751	4,951,592	3,638,706	4,308,087	4,084,125
Foreign and colonial products.....	412,785	529,686	506,762	421,734	645,704
Total.....	4,400,536	5,481,278	4,145,468	4,729,821	4,729,829
Honduras:					
Products of United Kingdom.....	731,459	712,896	614,697	567,658	575,545
Foreign and colonial products.....	51,939	67,710	56,308	41,339	57,217
Total.....	783,398	780,606	671,005	608,997	632,762
Falkland Islands:					
Products of United Kingdom.....	59,122	93,171	80,851	107,110	96,656
Foreign and colonial products.....	27,016	33,151	34,438	23,464	38,496
Total.....	86,138	126,322	115,289	130,574	135,152
Total to British Possessions:					
Products of United Kingdom.....	58,868,889	62,113,900	58,892,521	51,607,622	51,712,844
Foreign and colonial products.....	5,267,466	6,889,225	4,927,063	4,985,107	4,765,480
Total.....	64,136,355	69,003,125	63,819,584	56,592,729	56,478,324
TOTAL TO AMERICA:					
Products of United Kingdom.....	354,112,761	311,710,536	264,472,501	215,610,780	220,444,591
Foreign and colonial products.....	28,164,726	34,888,680	27,343,868	28,818,874	29,670,269
Total.....	382,277,487	346,599,216	291,816,369	244,429,654	250,114,860
<i>Continent of Asia.</i>					
Persia:					
Products of United Kingdom.....	237,994	180,206	222,102	345,546	768,892
Foreign and colonial products.....	8,748	14,194	12,636	27,792	32,562
Total.....	246,742	194,400	234,738	373,338	801,454
China:					
Products of United Kingdom.....	23,729,927	23,089,861	23,653,510	22,410,835	21,406,774
Foreign and colonial products.....	654,316	494,758	817,792	526,187	1,003,809
Total.....	24,384,243	23,584,619	24,471,302	22,937,022	22,410,583
Japan:					
Products of United Kingdom.....	8,164,888	6,294,889	10,966,703	9,878,849	10,707,322
Foreign and colonial products.....	992,062	394,768	649,466	771,778	1,249,609
Total.....	9,156,950	6,689,657	11,616,169	10,650,627	11,956,932
Dutch India:					
Products of United Kingdom.....	3,584,994	5,874,447	8,410,983	7,595,611	9,288,292
Foreign and colonial products.....	68,919	122,267	84,418	67,632	131,085
Total.....	3,653,913	5,996,714	8,495,401	7,663,243	9,419,377
French India:					
Products of United Kingdom.....	.....	.....	35,429	87,864	78,439
Foreign and colonial products.....	.....	.....	204	84	23
Total.....	.....	.....	35,633	87,948	78,462
Spanish India:					
Products of United Kingdom.....	2,080,785	2,220,792	4,520,918	3,531,922	6,279,198
Foreign and colonial products.....	53,600	60,580	47,400	48,148	107,663
Total.....	2,134,385	2,281,372	4,568,318	3,580,070	6,386,861
Asiatic Turkey:					
Products of United Kingdom.....	12,433,750	11,686,759	10,961,864	12,360,929	12,585,524
Foreign and colonial products.....	519,568	504,871	888,061	511,675	443,407
Total.....	12,953,318	12,191,630	11,850,925	12,872,604	13,028,931
All other (Siam, Cochin China, Portuguese possessions, &c.):					
Products of United Kingdom.....	150,470	135,506	98,527	40,498	121,521
Foreign and colonial products.....	4,534	2,894	4,996	3,256	15,489
Total.....	155,004	138,400	103,523	43,754	136,997

THE UNITED KINGDOM—Continued.

country and British Possessions—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
1,620,844	783,890	2,451,505	1,834,228	1,303,282	1,463,936	2,492,780	1,759,806
69,722	84,510	74,212	75,069	41,577	40,867	43,785	86,170
1,720,566	768,370	2,525,717	1,901,291	1,344,859	1,503,803	2,536,518	1,795,976
155,243,890	174,980,768	241,022,016	252,804,008	266,320,805	245,886,772	242,885,122	201,182,029
24,119,038	33,083,450	43,141,200	41,432,148	47,594,485	54,789,256	59,154,093	47,487,767
179,862,928	207,969,218	286,064,283	294,236,156	318,714,790	300,126,026	281,819,216	248,699,796
28,804,778	24,493,965	33,126,858	38,682,626	44,281,060	41,758,481	39,898,526	38,225,596
2,590,040	2,993,206	3,550,610	4,006,171	4,584,284	4,239,031	4,619,901	5,810,522
81,894,813	27,465,171	80,706,968	42,668,797	46,065,844	45,967,512	44,006,427	38,646,118
2,476,743	1,966,385	4,838,750	2,198,017	2,860,782	2,789,334	2,663,642	1,786,050
811,234	806,181	941,989	851,864	895,022	405,580	406,072	968,794
2,767,977	2,272,516	4,680,788	2,544,881	3,268,755	3,144,904	3,069,114	2,184,844
9,233,718	10,156,131	10,688,900	9,629,885	11,017,528	11,612,868	11,174,826	9,188,744
965,729	924,433	1,270,187	1,074,677	942,299	1,161,812	1,148,208	1,041,984
10,219,442	11,060,596	11,915,097	10,704,062	11,950,827	12,775,209	12,818,084	10,180,738
2,634,898	2,087,844	3,555,838	3,207,449	4,654,709	4,944,032	4,090,611	2,545,182
453,968	453,934	649,184	510,907	569,095	550,901	524,199	444,690
4,068,824	3,511,778	4,205,032	3,717,516	5,193,804	5,526,533	4,524,810	2,969,872
547,608	444,214	489,363	454,332	476,892	578,894	516,948	444,690
40,464	35,089	54,408	101,789	184,244	110,429	87,798	79,218
588,002	479,803	543,771	556,071	611,136	689,323	604,714	523,908
105,802	58,495	120,586	115,206	145,056	106,696	105,068	102,060
23,918	22,337	45,656	31,984	41,833	31,968	30,561	24,786
189,720	80,832	166,236	147,199	186,439	138,664	185,664	126,846
44,803,525	40,180,034	52,269,795	54,282,015	63,435,977	61,741,415	57,849,036	47,252,322
4,415,343	4,710,182	5,948,037	6,076,602	6,434,328	6,519,741	6,811,727	7,269,994
49,218,968	44,890,166	58,217,832	60,368,517	69,870,305	68,261,156	64,680,769	54,522,316
196,426,571	214,376,987	291,741,806	305,229,785	326,553,000	306,665,251	297,731,378	248,434,351
28,424,650	37,714,072	49,015,091	47,433,697	53,787,236	61,218,130	45,922,065	54,727,761
226,861,280	252,091,009	340,756,897	352,668,392	382,340,236	366,883,381	343,653,463	308,162,112
723,112	792,066	1,100,304	868,482	978,170	1,247,236	1,061,910	1,543,050
14,580	27,702	41,796	55,890	40,000	29,000	38,294	51,516
739,692	820,868	1,142,100	924,372	1,018,170	1,276,236	1,100,304	1,594,566
18,167,287	22,142,693	24,612,587	26,968,890	22,410,262	20,632,790	20,184,562	25,210,278
1,029,858	2,881,897	2,180,504	1,806,875	1,853,981	1,474,271	1,226,158	1,596,996
19,106,645	24,624,560	26,808,041	30,297,265	23,773,243	22,007,061	21,410,720	26,907,274
12,711,894	12,829,690	15,983,803	13,727,653	10,290,074	11,064,145	10,815,692	10,095,678
1,410,989	1,747,267	2,539,306	1,582,335	1,422,168	1,878,037	1,698,229	1,076,064
14,122,833	14,567,957	18,533,109	15,819,968	11,721,242	12,642,182	12,512,621	11,171,683
8,061,349	7,987,002	8,482,515	7,950,761	9,424,721	11,061,788	11,187,984	8,536,104
53,592	99,814	98,969	168,037	140,847	141,338	187,197	106,920
8,164,941	8,068,816	8,562,484	8,062,798	9,565,668	11,268,126	11,236,181	8,643,024
126,355	110,614	48,804	60,389	22,934	17,481	36,678	45,694
126,853	110,614	4,272	437	418	758	784	486
		58,076	60,776	23,372	18,239	37,412	46,170
4,050,961	2,911,256	6,318,194	7,220,448	6,351,772	5,914,138	4,711,065	4,646,160
92,913	67,835	188,228	112,457	156,446	154,106	102,154	114,696
4,162,874	2,978,611	6,456,422	7,333,905	6,508,220	6,066,259	4,873,219	4,760,856
17,433,901	14,824,531	13,594,854	15,554,537	14,142,804	15,808,624	14,530,297	14,728,370
726,910	650,628	576,377	637,962	814,806	1,048,142	988,553	982,692
18,160,901	15,475,154	14,171,211	16,212,469	14,957,612	16,941,766	15,518,850	15,706,062
178,187	100,728	122,929	115,313	495,886	294,196	286,215	647,838
12,646	13,467	10,123	12,776	36,770	13,246	25,246	477,850
190,833	114,195	133,052	128,089	532,666	307,432	311,561	1,126,488

THE UNITED KINGDOM—Continued.

Value of the total exports to each foreign

Countries.	1873.	1874.	1875.	1876.	1877.
<i>Continent of Asia—Continued.</i>					
<i>Total to foreign countries:</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Products of United Kingdom	51,822,743	49,423,060	60,178,506	64,251,554	61,210,980
Foreign and colonial products	2,801,747	1,563,827	2,068,003	1,956,412	2,983,529
Total	53,624,490	50,986,887	62,246,509	66,207,966	64,194,509
<i>British Possessions.</i>					
<i>India:</i>					
Products of United Kingdom	103,781,436	117,032,268	117,837,533	108,890,341	123,144,070
Foreign and colonial products	4,664,540	6,581,504	6,550,745	6,179,383	6,223,764
Total	108,445,976	123,613,772	124,388,278	115,069,724	129,367,834
<i>Straits Settlements:</i>					
Products of United Kingdom	10,231,384	13,129,402	9,583,541	9,569,077	11,059,363
Foreign and colonial products	822,684	507,434	644,159	522,253	652,401
Total	10,554,068	13,636,836	10,227,700	10,101,330	11,711,764
<i>Ceylon:</i>					
Products of United Kingdom	5,113,070	5,629,255	5,233,015	5,217,234	5,079,672
Foreign and colonial products	270,167	397,006	263,143	295,295	294,438
Total	5,383,237	6,026,261	5,496,158	5,512,489	5,374,110
<i>Hong Kong:</i>					
Products of United Kingdom	16,582,164	17,743,679	17,295,081	14,970,627	17,048,768
Foreign and colonial products	933,723	1,255,255	1,163,119	891,745	966,262
Total	17,515,887	18,998,934	18,458,200	15,862,372	17,715,030
<i>Total to British Possessions:</i>					
Products of United Kingdom	135,708,054	153,534,604	149,599,170	138,647,279	156,331,873
Foreign and colonial products	6,221,114	8,741,201	8,624,166	7,898,636	7,886,965
Total	141,929,168	162,275,805	158,223,336	146,545,915	164,168,738
<i>TOTAL TO ASIA:</i>					
Products of United Kingdom	186,802,863	202,777,358	209,355,604	194,553,287	216,774,001
Foreign and colonial products	8,514,113	10,290,634	10,616,503	9,817,346	10,787,632
Total	195,316,976	213,068,192	219,972,107	204,370,633	227,561,633
<i>Australasia.</i>					
<i>Australasia:</i>					
Products of United Kingdom	85,585,338	92,645,791	94,427,431	85,932,872	93,728,590
Foreign and colonial products	7,851,252	7,805,490	8,424,222	8,691,638	10,778,581
TOTAL TO AUSTRALASIA	93,436,591	100,451,281	102,851,653	94,624,510	104,507,171
Not designated	4,384,431	2,963,421	2,068,874	2,536,342	3,112,805
TOTAL TO ALL COUNTRIES	1,511,483,158	1,446,581,255	1,362,635,890	1,248,083,885	1,226,401,657

Quantities and value of

Principal articles.	1873.	1874.	1875.	1876.	1877.
Animals, living, except horses	number	982,777	1,249,336	1,312,905	1,075,248
	dollars	28,005,468	26,450,968	45,139,791	34,976,101
Bacon and hams	pounds	334,509,648	284,714,640	295,434,000	359,335,728
	dollars	30,351,818	28,685,805	33,934,804	41,851,064
Beef, salted and fresh	pounds	29,182,048	29,312,752	24,145,072	40,295,312
	dollars	2,526,300	2,543,335	2,208,078	4,690,799
Butter and butterine	pounds	143,311,392	181,418,496	164,501,440	186,863,104
	dollars	33,802,583	43,983,122	41,320,609	46,230,549
Caoutchouc	pounds	17,632,832	14,466,256	17,199,048	17,773,504
	dollars	8,086,022	6,447,300	7,632,912	7,439,008
Cheese	pounds	151,953,536	166,349,680	182,307,776	171,494,648
	dollars	19,736,432	21,786,856	22,883,349	20,694,882
Coffee	pounds	183,402,576	157,350,376	178,049,984	182,003,904
	dollars	35,139,506	34,334,870	36,513,438	39,996,199
<i>Corn and flour:</i>					
Wheat	bushels	81,877,783	77,776,424	96,836,165	82,980,360
	dollars	128,098,306	122,651,49	133,749,479	112,645,133
Indian corn and other grain	bushels	88,468,662	90,282,048	98,852,048	134,672,486
	dollars	84,013,746	97,569,929	100,334,982	115,427,542
Flour	dollars	8,551,131	8,563,454	8,506,333	8,405,612
	barrels	28,430,261	27,629,470	23,669,449	28,043,763
<i>Cotton:</i>					
Raw	pounds	1,527,596,224	1,555,776,432	1,492,346,688	1,487,858,848
	dollars	265,865,556	248,384,971	224,723,077	195,278,077
Yarn	pounds	1,205,376	1,624,187	2,038,969	1,937,063
	dollars	549,306	734,939	955,831	890,639
Manufactures	dollars	8,099,574	7,199,074	6,223,157	8,200,289

THE UNITED KINGDOM—Continued.

country and British Possession—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
61,484,186	61,600,180	70,283,940	74,495,413	64,134,643	66,025,403	62,764,353	65,448,163
3,370,988	4,987,695	5,599,555	3,844,239	3,965,440	4,438,898	4,324,965	4,406,960
64,855,124	66,677,875	75,883,495	78,339,652	68,100,083	70,464,301	67,089,218	69,855,122
113,125,685	103,879,603	147,993,386	142,325,874	141,199,169	154,908,049	148,640,160	142,342,596
6,717,866	6,513,751	7,662,861	8,701,521	7,899,510	7,712,292	7,181,690	7,727,886
119,843,551	110,393,354	155,656,247	151,117,895	148,698,679	162,620,340	155,821,850	150,070,482
8,631,193	9,861,027	11,025,867	12,460,204	11,863,103	12,752,645	12,795,758	11,897,186
519,140	746,568	928,185	273,293	763,185	821,850	891,450	872,856
9,150,335	10,607,615	11,954,002	13,333,497	12,126,288	13,574,495	13,687,208	12,270,042
3,904,519	3,795,261	4,797,899	3,921,767	3,541,064	3,523,728	3,584,463	2,592,324
229,460	224,537	372,655	206,796	203,683	165,896	216,294	157,950
4,133,979	4,019,798	5,170,554	4,128,565	3,744,747	3,689,124	3,800,777	2,750,274
13,952,069	14,327,202	18,382,557	17,276,614	14,737,075	14,052,578	15,644,077	18,261,450
828,790	875,981	921,412	901,540	541,180	758,126	1,791,109	1,680,843
14,780,859	15,203,183	19,283,469	18,178,154	15,278,255	14,810,704	17,435,186	19,942,292
139,613,468	131,863,096	182,179,209	175,984,459	170,840,411	185,236,999	180,664,478	174,598,556
8,295,256	8,360,857	9,885,063	10,773,152	8,907,558	9,457,664	10,080,543	10,439,534
147,908,724	140,223,950	192,064,272	186,757,611	179,748,469	194,694,663	190,745,021	185,033,090
200,372,492	192,765,607	251,862,840	249,611,390	233,996,884	250,015,166	242,366,921	240,041,718
11,651,664	13,820,899	15,442,822	14,561,501	13,832,998	13,867,562	14,367,014	14,846,494
212,024,156	206,081,457	266,805,662	264,172,891	247,829,882	263,862,728	256,739,935	254,888,212
95,125,776	79,075,777	82,284,344	103,896,745	123,274,323	117,691,957	116,133,870	122,316,490
9,488,392	8,208,889	8,831,883	12,657,748	14,996,327	12,747,965	14,137,166	14,289,362
104,614,168	87,284,166	91,115,727	116,554,493	138,270,650	130,439,922	130,271,036	136,586,412
2,107,969	6,857,159	3,476,708	4,078,661	3,843,258	3,035,533	2,742,071	2,812,518
1,193,100,150	1,209,087,149	1,391,974,305	1,443,822,474	1,490,371,070	1,484,434,160	1,438,402,453	1,320,021,952

principal articles imported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
1,201,498	1,245,022	1,382,036	1,278,801	1,483,760	1,629,731	1,396,986	1,140,486
35,247,663	34,386,571	49,762,974	41,432,744	45,061,706	58,241,044	51,058,702	42,445,782
481,056,512	559,774,472	597,480,576	517,042,208	325,292,000	413,951,004	382,864,262	454,552,000
42,132,847	43,187,068	53,390,116	52,149,533	37,772,261	48,776,544	42,480,682	42,212,502
81,661,776	90,970,544	114,005,072	119,683,088	77,416,896	122,596,096	122,162,768	127,888,990
8,584,519	9,415,900	11,783,272	12,944,736	8,675,887	14,066,769	13,000,589	13,698,286
200,269,904	229,084,688	260,546,160	229,302,192	242,911,074	261,460,556	277,248,832	268,953,770
48,376,722	50,439,292	59,005,425	52,906,604	55,184,932	57,221,314	60,961,677	56,196,610
16,799,008	16,807,312	18,993,744	19,272,624	20,853,112	25,059,312	22,270,528	20,215,792
6,891,337	7,874,609	11,605,422	10,957,443	18,887,803	17,732,670	11,944,345	9,645,642
220,512,208	200,448,752	198,911,664	206,090,080	189,787,776	201,899,568	215,899,568	203,889,184
24,010,894	18,584,733	24,744,758	25,491,259	23,084,368	23,785,277	24,307,946	19,776,798
142,203,824	180,551,232	173,202,512	137,618,936	152,777,408	157,599,008	127,417,360	115,870,944
28,763,672	35,409,260	29,578,509	28,140,253	25,279,465	23,991,220	18,227,031	11,644,560
93,158,770	111,237,851	108,155,578	106,509,585	119,916,065	119,725,445	88,307,649	114,797,672
133,336,537	152,935,311	148,821,515	132,245,280	166,496,352	152,668,778	99,732,719	117,057,474
145,379,506	131,450,052	135,876,016	115,783,748	104,108,662	138,167,562	113,800,646	123,072,297
118,125,896	101,429,691	107,390,599	95,075,108	89,708,057	113,181,657	85,677,154	93,149,190
4,473,188	6,150,450	6,033,311	6,483,982	7,471,578	9,331,572	8,625,886	9,047,135
32,971,197	41,319,472	42,311,690	47,787,364	51,819,458	58,487,502	49,395,985	46,803,958
340,360,048	469,358,464	628,666,576	694,268,884	784,111,168	733,353,552	749,169,184	1,405,816,336
1162,803,008	175,837,463	207,872,348	213,056,884	228,741,210	218,803,559	216,201,421	177,854,536
7,376,659	8,640,297	9,901,127	7,837,196	8,922,029	7,873,984	7,730,980	8,262,281
3,131,716	2,057,360	2,536,110	2,204,214	2,349,640	2,129,018	2,045,838	2,393,550
10,644,881	11,109,950	12,293,628	12,156,260	11,741,620	11,574,656	10,885,720	9,618,912

THE UNITED KINGDOM—Continued.

Quantities and value of principal

Principal articles.	1873.	1874.	1875.	1876.	1877.
Drugs, dyes, tannins, and dye-woods	dollars.. 27,755,598	26,990,681	25,144,498	25,685,251	22,509,440
Eggs	{ great hundreds .. 5,503,950	5,671,269	6,178,862	6,275,217	6,258,880
	{ dollars .. 11,421,107	11,835,031	13,440,919	12,785,125	12,020,612
Feathers, ornamental	{ pounds .. 212,809	273,705	296,000	324,618	304,378
	{ dollars .. 2,612,064	2,980,376	3,468,103	3,783,898	4,243,713
Fish	{ pounds .. 80,535,488	74,077,472	94,090,080	108,205,828	120,041,824
	{ dollars .. 4,875,727	4,772,277	6,155,564	7,095,478	7,971,658
Flax, dressed and undressed, and tow	{ tons .. 122,948	132,949	99,841	78,697	124,672
	{ dollars .. 26,754,115	26,950,625	21,443,807	17,202,069	24,095,831
Fruit and nuts	{ pounds .. 20,874,068	24,071,538	25,368,743	27,539,855	30,399,786
	{ dollars .. 90,429,920	106,053,136	110,171,824	119,760,432	127,830,416
Glass of all kinds	{ pounds .. 5,571,762	7,714,852	8,851,725	9,041,247	9,273,692
	{ dollars .. 28,192,640	28,137,552	28,190,960	29,168,944	32,142,000
Gums	{ pounds .. 4,883,790	4,909,893	6,246,560	4,963,347	4,628,611
	{ dollars .. 6,488,182	7,951,658	6,798,217	5,968,473	8,214,990
Hair, goat's, or wool	{ pounds .. 3,834,456	5,080,391	4,260,368	3,545,540	4,779,159
	{ dollars .. 189,708,649	138,898,919	151,224,896	131,581,208	141,522,704
Hemp, dressed and undressed	{ pounds .. 11,284,220	10,744,294	10,976,470	9,516,891	10,097,568
	{ dollars .. 149,009,576	138,898,816	135,232,384	118,224,400	128,393,888
Hides, raw	{ pounds .. 22,973,832	22,319,534	20,428,833	16,044,120	17,223,032
	{ dollars .. 81,617,996	30,606,147	42,164,937	44,768,891	46,917,069
Hides, tanned, curried, or dressed	{ pounds .. 9,591,380	10,880,826	13,676,244	14,472,706	14,855,089
	{ dollars .. 258,995	239,129	191,831	214,315	209,393
Jute	{ pounds .. 17,593,147	17,268,450	12,516,988	13,630,139	14,239,629
	{ dollars .. 70,152,080	41,922,736	60,507,328	62,963,488	66,233,568
Lard	{ pounds .. 6,749,962	4,299,137	7,944,977	7,677,444	7,153,089
Leather	{ pounds .. 7,900,112	9,503,339	14,478,747	11,674,892	10,917,251
	{ dollars .. 29,203,888	29,704,976	19,193,776	31,703,832	52,528,336
Meat, preserved, otherwise than by salting	{ pounds .. 3,563,989	3,679,925	2,878,073	4,810,990	6,970,877
Metals:					
Copper, and copper ore and regulus	{ tons .. 123,302	129,193	143,129	162,096	215,958
	{ dollars .. 24,646,917	24,362,772	26,681,560	25,231,015	26,403,415
Iron ore	{ tons .. 77,651	77,632	92,959	753,903	1,279,888
	{ dollars .. 4,799,542	5,143,775	6,415,487	8,898,179	6,104,493
Iron, in bars	{ tons .. 81,904	69,025	6,447	88,799	91,817
	{ dollars .. 4,901,971	6,418,071	6,914,808	5,829,813	4,752,940
Iron and steel manufact-ures	{ tons .. 65,066	64,464	83,018	77,853	94,299
	{ dollars .. 7,464,596	6,862,262	6,914,808	6,923,221	7,470,128
Lead, pig and sheet	{ tons .. 8,726	10,324	18,903	8,534,893	98,610
	{ dollars .. 5,074,293	4,397,177	7,071,242	8,504,893	9,801,662
Tin, in blocks, ingots, bar, or slabs	{ tons .. 28,454,017	24,797,261	27,418,779	5,181,914	15,414
	{ dollars .. 6,456,631	7,775,174	8,915,499	24,856,164	4,672,394
Oil, of all kinds	{ pounds .. 78,378,624	86,294,896	85,419,040	8,593,603	20,520,675
	{ dollars .. 5,175,988	5,238,677	5,032,232	5,904,229	7,081,035
Oil-seed cake	{ pounds .. 16,661,340	21,463,361	19,440,939	93,049,920	96,254,624
	{ dollars .. 4,820,347	4,827,971	3,767,671	5,904,229	5,931,630
Potatoes	{ pounds .. 10,303,948	5,029,398	5,204,943	8,950,050	8,633,819
	{ dollars .. 6,107,709	6,694,800	7,312,716	8,460,940	11,414,820
Rags and other paper material	{ tons .. 841,258	394,437	376,320	7,017,199	8,398,289
	{ dollars .. 15,772,281	17,971,368	14,809,753	362,274	370,586
Rice	{ pounds .. 87,463,441	39,740,279	46,915,866	14,285,671	16,994,498
	{ dollars .. 6,445,213	5,911,631	4,487,437	48,162,430	43,648,634
Seeds, of all kinds	{ pounds .. 22,844,550	24,136,340	16,736,489	6,016,967	4,441,801
	{ dollars .. 48,917,834	58,150,171	59,005,626	28,043,857	21,686,969
Silk, raw	{ pounds .. 16,712,222	16,948,497	18,215,539	57,424,496	62,504,402
	{ dollars .. 15,097,427	13,813,541	16,087,299	17,044,897	16,226,344
Skins and furs	{ proof gallons .. 15,097,427	13,813,541	16,087,299	21,080,485	13,733,068
	{ dollars .. 16,570,747	13,236,135	14,611,755	19,798,619	11,667,697
Spirits: brandy, rum, &c. {					
Sugar:					
Refined	{ pounds .. 254,680,880	304,349,472	320,406,902	313,198,868	384,143,536
	{ dollars .. 18,697,737	20,276,469	21,083,487	20,014,287	23,156,968
Unrefined	{ pounds .. 1,424,333,600	1,562,594,592	1,821,647,632	1,748,507,968	1,960,535,728
	{ dollars .. 82,942,023	76,970,819	83,241,266	79,352,321	103,913,803
Tea	{ pounds .. 168,785,280	162,782,810	197,608,816	185,536,371	187,515,284
	{ dollars .. 55,266,990	56,049,848	66,615,344	61,708,411	60,656,396
Tobacco:					
Unmanufactured	{ pounds .. 81,862,733	76,175,215	48,943,959	76,814,974	74,362,318
	{ dollars .. 12,727,217	12,867,423	8,553,440	13,004,825	12,122,711
Manufactured, cigars and snuff	{ pounds .. 3,834,169	4,632,581	3,344,607	3,318,682	3,762,831
	{ dollars .. 6,297,995	6,444,365	5,791,210	6,390,424	7,705,361
Wine	{ gallons .. 21,682,356	18,234,972	18,429,305	19,930,723	19,568,807
	{ dollars .. 40,179,204	33,356,440	33,453,433	33,923,765	34,006,375

THE UNITED KINGDOM—Continued.

articles imported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
24,820,428	32,285,748	36,674,410	38,728,087	43,678,181	39,678,181	39,965,671	41,187,528
6,530,956	6,889,282	6,223,406	6,308,909	6,764,020	7,536,908	9,280,073	8,554,568
11,203,927	11,157,199	10,584,292	11,266,154	11,592,107	13,277,787	14,144,906	14,345,632
264,799	226,584	328,896	345,774	563,028	646,144	869,100	751,961
4,874,104	5,670,675	6,444,244	6,427,000	9,518,102	9,777,300	10,143,450	7,284,242
111,542,876	129,835,680	150,464,008	171,584,529	188,792,804	145,124,446	149,079,264	170,803,940
7,483,294	8,033,871	8,100,210	11,838,544	10,104,820	11,187,526	9,957,168	9,693,756
87,002	94,925	106,217	99,308	110,135	87,278	90,028	93,425
16,926,670	17,421,452	19,790,384	16,543,490	17,888,196	14,076,851	24,447,380	15,624,298
27,801,620	28,932,454	29,249,196	31,678,884	28,007,737	32,149,840	33,644,568	30,647,160
136,873,632	128,533,552	142,910,432	143,709,328	150,017,728	154,329,384	161,787,136	170,508,128
9,983,646	7,650,510	8,693,654	8,186,811	8,181,619	7,804,635	7,632,477	7,831,620
28,659,472	30,825,504	32,426,952	44,513,280	42,032,644	43,034,208	37,039,216	44,822,400
4,156,151	4,348,436	5,458,431	7,220,740	5,844,062	5,993,269	5,544,168	6,459,912
7,080,909	10,072,700	13,568,019	10,059,870	16,945,675	13,364,822	16,006,022	14,871,140
3,630,138	3,613,969	5,996,635	8,622,921	7,004,937	5,112,633	6,317,660	4,630,122
137,711,728	135,532,536	148,219,440	165,805,360	151,161,696	161,338,984	148,944,640	162,078,200
9,309,891	8,218,518	9,077,000	10,589,342	10,475,241	11,523,531	10,050,268	10,751,292
130,143,328	113,341,992	139,080,256	113,268,512	138,254,704	134,047,018	136,387,064	159,900,000
16,698,066	14,174,564	18,653,796	15,615,758	18,199,150	18,481,909	18,863,356	18,809,638
237,873	266,524	250,834	276,018	382,519	413,567	284,556	319,955
15,780,570	15,831,435	19,531,384	19,811,618	20,975,857	22,104,165	17,418,160	15,750,253
101,763,780	94,171,728	103,881,844	95,684,064	74,721,136	95,697,702	78,380,624	97,675,620
8,699,068	10,789,045	14,701,612	15,826,107	9,070,510	10,920,498	7,400,668	7,807,590
59,542,758	45,717,753	60,248,678	66,356,847	75,217,794	74,718,286	76,837,971	80,846,455
19,025,277	16,786,992	21,926,857	23,835,732	25,625,152	26,506,699	26,331,465	28,036,638
11,161,562	9,851,896	11,726,611	10,686,256	13,243,848	12,677,206	10,801,949	10,050,480
49,268,891	60,602,224	73,449,600	64,457,984	62,785,072	68,964,800	50,510,800	59,118,000
6,394,307	8,213,881	9,261,754	7,958,469	8,228,507	8,528,672	6,778,072	7,632,028
202,110	205,821	208,441	203,305	212,638	226,105	256,383	256,600
23,252,937	25,201,788	25,035,536	23,837,640	25,942,633	26,001,005	26,740,611	23,895,648
1,315,220	1,217,252	2,952,841	2,744,513	3,679,140	3,874,002	3,055,518	3,104,858
5,651,456	5,103,809	18,559,011	11,418,137	14,896,622	13,360,228	13,090,081	9,811,992
115,148	107,114	134,424	124,892	159,936	187,042	129,844	184,857
4,948,121	4,268,902	5,903,082	5,542,287	6,786,781	6,101,582	5,665,507	5,930,172
118,154	125,798	174,097	196,388	192,827	217,284	207,337	194,596
8,308,880	8,367,467	11,788,037	12,465,040	12,028,004	13,660,551	18,080,081	11,476,404
112,158	114,840	106,465	105,286	96,985	113,931	122,098	118,813
8,834,119	7,440,845	7,594,163	6,746,210	6,157,615	6,344,186	5,940,500	5,884,486
18,638	18,725	21,633	22,747	28,252	29,179	29,208	38,122
5,059,886	5,559,670	8,437,427	9,105,074	12,337,484	11,872,781	10,321,068	10,604,034
21,600,948	22,538,962	23,624,198	23,169,720	21,460,244	23,434,337	21,410,118	20,237,040
7,902,700	7,928,006	9,442,173	8,675,465	7,097,437	9,416,216	9,914,483	9,867,744
108,986,544	98,424,256	116,121,712	120,535,104	124,859,536	130,240,816	162,868,832	155,191,008
5,792,143	4,045,787	5,235,734	5,635,263	5,846,118	6,250,611	7,033,196	6,630,498
30,255,256	43,280,291	38,793,371	50,237,258	59,095,963	70,526,996	52,975,789	73,873,611
5,891,904	6,719,115	6,968,096	9,488,878	8,264,152	10,847,648	8,816,918	11,120,970
11,596,060	13,106,861	13,896,551	5,383,908	4,846,008	7,704,363	4,005,646	8,537,108
6,952,453	7,584,127	10,180,169	9,832,140	10,144,895	11,400,394	10,334,450	10,968,534
341,601	384,015	441,874	476,004	464,020	438,878	368,422	312,960
15,556,097	16,914,506	18,252,022	17,854,100	16,026,292	15,432,570	14,020,431	10,622,500
44,948,006	37,651,125	39,377,508	40,642,984	45,673,546	47,800,251	40,514,010	41,664,788
4,170,606	8,896,423	8,673,949	2,904,680	3,877,119	3,178,593	4,522,702	2,081,602
17,888,369	16,451,076	15,214,988	11,085,008	13,182,007	12,515,108	16,251,655	7,118,928
62,235,338	61,047,937	65,965,858	57,680,210	56,020,874	51,146,251	53,382,595	49,905,818
10,768,764	11,420,874	14,109,061	13,239,063	14,614,613	13,923,098	15,955,280	14,474,534
12,211,963	13,546,777	10,050,442	8,492,224	11,091,798	9,336,977	11,872,164	11,755,518
10,792,922	14,583,426	10,187,138	8,764,825	9,851,264	8,807,187	10,090,876	10,870,314
385,845,780	338,108,288	340,040,288	314,981,968	309,805,776	428,279,040	477,553,776	596,853,152
23,236,159	20,001,808	21,563,198	19,619,392	19,271,251	21,717,478	21,640,856	23,501,502
1,670,158,672	1,966,282,976	1,908,180,656	2,088,954,896	2,221,993,120	2,261,062,224	2,187,740,096	2,174,554,096
77,885,919	87,186,818	89,710,700	98,424,064	101,749,150	99,499,932	73,968,471	65,648,876
204,872,886	184,076,472	206,971,570	209,801,522	210,683,183	222,262,431	213,877,750	212,143,820
63,417,105	54,736,202	56,441,114	54,473,801	53,673,276	56,098,868	51,005,496	51,773,020
89,250,023	88,861,220	50,571,973	48,195,897	36,075,870	56,475,139	53,530,407	79,123,389
12,157,416	5,664,272	8,490,929	6,688,594	5,601,881	8,723,535	8,535,856	12,682,170
3,809,163	3,561,558	3,502,928	3,084,590	4,086,520	3,121,174	3,165,388	4,247,267
5,757,171	5,393,377	5,493,443	5,911,738	6,797,638	5,180,064	4,663,437	6,013,322
16,452,538	15,162,857	17,885,496	16,297,033	15,715,813	15,559,795	15,106,271	14,629,738
29,105,009	26,075,115	31,424,488	27,464,380	26,630,866	26,496,492	25,958,280	24,914,304

THE UNITED KINGDOM—Continued.

Quantities and value of principal

Principal articles.	1873.	1874.	1875.	1876.	1877.
Drugs, dyes, tannins, and dye-woods	dollars.. 27,755,598	26,990,681	25,144,498	25,685,251	22,509,440
Eggs	{ great hundreds .. 5,503,950	5,671,269	6,176,863	6,275,217	6,258,880
	{ dollars.. 11,421,107	11,835,031	12,440,919	12,785,125	12,020,612
Feathers, ornamental	{ pounds .. 212,809	273,705	296,000	324,618	304,378
	{ dollars.. 2,612,084	2,980,376	3,466,103	3,763,398	4,243,713
Fish	{ pounds .. 80,535,488	74,077,472	94,090,080	108,205,828	120,041,824
	{ dollars.. 4,875,727	4,772,277	6,155,564	7,096,478	7,971,658
Flax, dressed and undressed, and tow	{ tons .. 122,948	132,949	99,841	78,697	124,672
	{ dollars.. 26,754,115	28,960,625	21,443,807	17,202,069	24,665,831
Fruit and nuts	{ pounds .. 20,874,068	24,071,598	25,868,743	27,539,355	30,399,786
	{ dollars.. 90,429,920	106,033,136	110,171,824	119,780,432	127,830,416
Glass of all kinds	{ pounds .. 5,571,762	7,714,852	8,851,725	9,041,247	9,273,692
	{ dollars.. 38,192,640	26,137,552	28,190,960	29,168,944	32,142,000
Gums	{ pounds .. 4,883,790	4,909,893	6,246,560	4,963,347	4,628,611
	{ dollars.. 6,488,182	7,961,658	6,796,217	5,968,478	8,214,990
Hair, goat's, or wool	{ pounds .. 3,834,456	5,080,391	4,260,868	3,545,540	4,779,159
	{ dollars.. 189,708,648	188,898,916	151,284,896	131,581,208	141,522,704
Hemp, dressed and undressed	{ pounds .. 11,284,220	10,744,294	10,976,470	9,516,891	10,067,568
	{ dollars.. 149,009,576	138,868,816	135,232,884	118,224,400	128,393,888
Hides, raw	{ pounds .. 22,973,832	22,319,534	20,424,583	16,049,120	17,223,032
	{ dollars.. 31,617,966	30,666,147	42,184,937	44,768,891	46,917,069
Hides, tanned, curried, or dressed	{ pounds .. 9,591,380	10,880,826	13,676,244	14,472,706	14,355,089
	{ dollars.. 258,965	289,129	191,831	214,315	209,393
Jute	{ pounds .. 17,593,147	17,268,450	12,516,988	13,630,139	14,239,629
	{ dollars.. 70,152,080	41,922,736	60,507,828	62,963,488	66,233,568
Lard	{ pounds .. 6,749,962	4,289,137	7,944,977	7,677,444	7,153,089
Leather	{ dollars.. 7,906,113	9,508,330	14,478,747	11,674,862	10,917,251
Leather manufactures	{ pounds .. 29,203,884	29,704,976	19,193,776	31,703,332	52,528,386
Meat, preserved, otherwise than by salting	{ dollars.. 3,563,989	3,679,925	2,678,073	4,310,960	6,970,377
Metals:					
Copper, and copper ore and regulus	{ tons .. 123,302	129,195	143,129	162,096	215,956
	{ dollars.. 24,646,917	24,362,772	26,681,560	25,231,045	26,403,415
Iron ore	{ tons .. 77,651	77,632	92,959	753,903	1,279,888
	{ dollars.. 4,799,542	5,143,775	6,415,487	8,896,179	6,104,495
Iron, in bars	{ tons .. 31,904	69,025	64,947	88,799	91,817
	{ dollars.. 4,901,971	6,418,071	6,914,808	5,328,813	4,752,940
Iron and steel manufactures	{ tons .. 65,066	61,464	83,018	7,753,947	4,299,940
	{ dollars.. 7,484,596	6,862,262	8,757,636	6,923,221	7,470,128
Lead, pig and sheet	{ tons .. 8,726	10,324	18,903	8,875	98,610
	{ dollars.. 5,074,293	4,397,177	7,071,242	8,504,893	9,801,662
Tin, in blocks, ingots, bar, or slabs	{ tons .. 28,454,017	24,787,261	27,418,779	1,053	15,414
	{ dollars.. 6,456,631	7,775,174	8,915,499	5,181,914	4,672,394
Oil, of all kinds	{ pounds .. 76,378,624	86,294,896	85,419,400	83,049,920	99,254,624
	{ dollars.. 5,175,988	5,238,677	5,032,282	5,090,229	5,931,630
Oil-seed cake	{ pounds .. 16,661,340	21,463,361	19,440,939	25,201,177	33,866,311
	{ dollars.. 4,820,347	4,827,971	3,767,671	6,956,050	8,638,819
Paper and pasteboard of all kinds (except paper hangings)	{ pounds .. 10,303,948	5,029,398	5,204,943	8,480,940	11,414,920
	{ dollars.. 6,107,709	6,694,800	7,812,716	7,017,199	8,396,289
Rags and other paper material	{ tons .. 841,258	394,457	376,320	362,274	370,589
Rice	{ pounds .. 15,772,281	17,971,368	14,609,753	14,235,671	16,964,406
	{ dollars.. 87,463,441	99,749,279	48,915,986	48,162,430	48,648,634
Seeds, of all kinds	{ pounds .. 6,445,213	5,911,831	4,487,437	6,016,967	4,441,891
	{ dollars.. 82,844,550	24,136,340	16,738,489	28,043,857	21,636,989
Silk, raw	{ pounds .. 48,917,834	58,150,171	59,605,626	57,424,496	62,504,402
	{ dollars.. 16,712,222	16,948,497	18,215,839	17,044,807	16,226,344
Silk manufactures	{ pounds .. 15,097,427	13,813,541	16,087,239	21,900,485	13,733,083
	{ dollars.. 16,576,746	13,230,135	14,611,755	19,798,619	11,637,667
Skins and furs	{ proof gallons .. 16,576,746	13,230,135	14,611,755	19,798,619	11,637,667
Spirits: brandy, rum, &c. { proof gallons .. 16,576,746	13,230,135	14,611,755	19,798,619	11,637,667	
Sugar:					
Refined	{ pounds .. 254,680,880	304,349,472	320,406,902	318,198,868	394,143,536
	{ dollars.. 18,697,737	20,276,469	21,083,487	20,014,287	23,159,968
Unrefined	{ pounds .. 1,424,333,800	1,582,564,592	1,821,647,632	1,748,567,068	1,890,583,728
	{ dollars.. 82,942,028	76,970,819	83,241,266	79,382,321	103,913,803
Tee	{ pounds .. 168,765,280	102,782,810	197,505,816	185,536,371	187,615,284
	{ dollars.. 55,266,990	66,049,848	66,613,844	61,708,411	60,656,396
Tobacco:					
Unmanufactured	{ pounds .. 81,862,733	76,175,215	68,945,950	76,814,974	74,362,318
	{ dollars.. 12,727,217	12,867,423	8,533,440	13,004,825	12,122,711
Manufactured, cigars and snuff	{ pounds .. 3,884,189	4,682,581	3,344,607	3,818,682	3,762,831
	{ dollars.. 6,237,995	6,444,365	5,791,210	6,390,472	4,705,361
Wine	{ gallons .. 21,682,356	18,234,972	18,429,305	19,830,723	19,568,807
	{ dollars.. 40,179,204	33,356,440	33,453,433	33,933,763	34,605,375

THE UNITED KINGDOM—Continued.

articles imported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
24, 320, 428 6, 530, 556 11, 263, 927 264, 799 4, 874, 104 111, 542, 376 7, 493, 294 87, 002 16, 926, 670 27, 801, 620 136, 873, 632 9, 963, 646 23, 689, 472 4, 156, 151 7, 060, 909 3, 639, 138 187, 711, 728 9, 309, 891 190, 143, 328 16, 568, 056	32, 225, 748 6, 889, 282 11, 157, 199 326, 584 5, 570, 075 129, 935, 680 8, 033, 871 94, 925 17, 421, 452 28, 982, 454 128, 533, 552 9, 963, 646 30, 825, 504 4, 848, 436 10, 072, 700 3, 613, 969 185, 532, 536 8, 218, 518 113, 841, 992 14, 174, 564	34, 674, 410 6, 228, 406 10, 884, 292 328, 696 6, 644, 244 150, 464, 008 8, 109, 210 105, 217 19, 799, 364 29, 249, 196 142, 910, 432 8, 638, 054 32, 428, 352 5, 458, 431 18, 565, 019 5, 999, 535 148, 219, 440 9, 077, 090 199, 089, 250 18, 853, 796	38, 728, 987 6, 308, 963 11, 266, 154 349, 774 6, 427, 009 171, 384, 628 11, 383, 544 99, 808 16, 543, 490 31, 078, 864 143, 709, 328 8, 196, 811 44, 513, 280 7, 220, 740 10, 059, 870 8, 622, 921 165, 803, 360 10, 589, 242 113, 268, 512 15, 615, 758	43, 678, 181 6, 786, 029 11, 592, 107 668, 928 9, 515, 102 138, 792, 804 10, 104, 820 110, 135 17, 883, 198 28, 007, 757 150, 017, 728 8, 161, 519 42, 052, 644 5, 844, 062 16, 945, 675 7, 004, 927 151, 161, 698 10, 475, 341 133, 254, 704 18, 199, 150	39, 678, 181 7, 536, 968 13, 377, 787 646, 144 9, 777, 300 145, 124, 448 11, 187, 526 87, 278 14, 076, 951 32, 149, 840 154, 829, 384 7, 004, 635 43, 034, 208 5, 903, 269 13, 964, 822 5, 112, 638 161, 333, 984 11, 623, 531 134, 047, 018 18, 481, 909	39, 065, 671 9, 280, 078 14, 144, 986 869, 100 10, 143, 450 149, 079, 264 9, 987, 168 99, 026 24, 447, 380 83, 654, 568 161, 787, 136 7, 862, 477 37, 039, 216 5, 544, 166 16, 906, 026 6, 317, 660 148, 944, 640 10, 050, 266 136, 387, 664 18, 863, 356	41, 187, 528 8, 356, 568 14, 345, 632 751, 261 7, 264, 242 170, 803, 840 9, 693, 758 93, 425 15, 524, 298 80, 647, 160 170, 508, 128 7, 991, 520 44, 822, 400 6, 459, 912 14, 871, 140 4, 630, 122 162, 078, 200 17, 751, 292 159, 900, 009 18, 809, 638
237, 573 15, 790, 970 101, 763, 760 8, 089, 068 56, 542, 758 19, 625, 777 11, 101, 562 49, 268, 890 6, 394, 307 202, 110 23, 252, 937 1, 315, 220 5, 651, 456 115, 148 4, 948, 121 118, 154 8, 308, 880 112, 158 8, 834, 119 18, 638 5, 059, 886 21, 600, 848 7, 902, 700 103, 090, 544 5, 792, 143 30, 255, 256 5, 891, 904 11, 596, 660 6, 952, 453 341, 601 15, 558, 097 44, 948, 006 4, 170, 606 17, 888, 309 62, 235, 333 10, 768, 764 12, 211, 963 10, 790, 922 365, 845, 760 23, 226, 150 1, 670, 158, 672 77, 835, 916 204, 872, 889 63, 417, 105 89, 250, 023 12, 157, 416 3, 809, 163 5, 757, 171 16, 452, 538 29, 105, 909	266, 524 15, 831, 435 94, 171, 728 10, 789, 045 45, 717, 753 10, 786, 992 9, 851, 896 60, 602, 224 8, 213, 881 205, 821 25, 201, 788 1, 217, 252 5, 108, 809 107, 114 4, 268, 902 125, 708 8, 367, 467 114, 840 7, 440, 845 18, 725 5, 559, 670 22, 536, 962 7, 928, 006 98, 424, 256 4, 945, 787 43, 280, 291 6, 719, 115 13, 106, 861 7, 584, 127 384, 015 16, 914, 506 37, 551, 125 8, 896, 422 16, 451, 076 61, 047, 937 11, 420, 874 13, 546, 777 14, 588, 426 388, 108, 288 20, 091, 308 986, 282, 976 87, 186, 818 184, 075, 472 54, 736, 202 38, 861, 220 5, 664, 272 3, 591, 558 8, 903, 877 15, 162, 857 26, 075, 115	259, 834 19, 631, 368 103, 881, 344 10, 791, 612 60, 248, 678 21, 926, 857 11, 726, 611 73, 449, 000 9, 261, 754 208, 441 25, 055, 536 2, 952, 841 19, 539, 811 134, 424 5, 908, 082 174, 097 11, 788, 037 106, 465 7, 594, 163 21, 838 8, 437, 427 23, 624, 198 5, 422, 173 116, 121, 712 5, 238, 734 38, 793, 371 6, 265, 096 13, 836, 551 10, 189, 169 441, 874 18, 252, 023 39, 377, 508 8, 676, 949 15, 214, 988 65, 968, 058 14, 109, 061 10, 056, 442 10, 187, 138 340, 040, 288 21, 683, 198 1, 908, 180, 559 89, 710, 700 206, 971, 570 56, 441, 114 56, 571, 972 18, 490, 979 3, 502, 922 5, 493, 443 17, 885, 496 31, 424, 486	276, 018 19, 811, 618 95, 684, 064 15, 326, 107 66, 856, 847 23, 835, 732 10, 686, 255 64, 457, 984 7, 958, 469 208, 305 22, 327, 540 2, 744, 513 11, 418, 137 124, 892 5, 542, 287 106, 388 12, 465, 047 105, 296 6, 746, 210 22, 747 9, 105, 074 23, 169, 720 8, 575, 485 120, 535, 104 5, 535, 268 56, 237, 258 9, 488, 878 5, 333, 908 9, 832, 140 476, 004 17, 854, 100 40, 642, 984 2, 904, 580 11, 985, 008 57, 680, 210 18, 239, 063 8, 492, 224 8, 764, 825 314, 981, 968 19, 619, 892 2, 088, 954, 896 96, 424, 064 209, 801, 522 54, 473, 801 48, 195, 897 6, 683, 594 3, 064, 590 5, 911, 738 16, 297, 033 27, 464, 380	382, 519 20, 975, 857 74, 721, 136 9, 070, 510 75, 217, 794 25, 625, 152 26, 586, 699 13, 343, 348 62, 785, 072 8, 228, 507 212, 688 25, 942, 653 3, 679, 140 14, 886, 622 159, 958 6, 786, 781 192, 827 12, 028, 004 98, 985 6, 157, 615 28, 252 12, 337, 484 21, 460, 244 7, 097, 437 124, 359, 586 5, 846, 118 59, 695, 982 8, 364, 152 4, 846, 008 10, 144, 896 464, 020 16, 026, 292 45, 673, 546 3, 877, 119 13, 182, 007 56, 020, 374 16, 614, 618 11, 091, 786 9, 851, 264 309, 805, 776 19, 271, 251 2, 221, 993, 100 101, 749, 150 210, 603, 133 53, 673, 276 36, 075, 370 5, 601, 881 4, 096, 520 6, 797, 638 15, 715, 813 26, 530, 366	413, 567 22, 108, 163 95, 597, 702 7, 400, 698 74, 718, 266 26, 586, 699 12, 677, 208 68, 964, 012 8, 528, 672 226, 105 26, 001, 005 8, 874, 002 13, 960, 228 187, 642 6, 010, 582 217, 284 13, 660, 551 113, 931 6, 944, 186 29, 179 11, 672, 781 23, 434, 337 9, 416, 216 130, 340, 816 6, 350, 611 70, 526, 996 10, 647, 648 7, 704, 363 11, 400, 394 433, 878 15, 432, 570 47, 300, 251 4, 522, 702 16, 251, 655 53, 382, 595 15, 965, 280 11, 672, 164 10, 090, 876 428, 279, 040 21, 717, 478 2, 281, 062, 224 99, 499, 932 213, 877, 750 51, 006, 496 53, 475, 139 8, 723, 585 3, 121, 174 6, 163, 437 15, 559, 795 25, 958, 280	284, 556 17, 418, 400 78, 380, 624 7, 400, 698 76, 857, 971 26, 331, 465 10, 861, 949 50, 510, 960 6, 778, 072 256, 383 26, 740, 611 8, 055, 518 13, 090, 031 129, 844 5, 666, 507 207, 337 18, 060, 891 122, 098 5, 940, 506 29, 208 10, 821, 068 21, 410, 118 9, 914, 458 162, 868, 832 7, 033, 196 52, 975, 799 8, 316, 918 4, 005, 646 10, 334, 450 368, 422 14, 020, 431 40, 514, 010 4, 522, 702 16, 251, 655 53, 382, 595 15, 965, 280 11, 672, 164 10, 090, 876 477, 553, 776 21, 640, 886 2, 137, 740, 098 78, 968, 471 213, 877, 750 51, 006, 496 53, 530, 497 8, 535, 300 3, 165, 338 6, 015, 437 15, 106, 271 25, 958, 280	319, 953 15, 759, 253 97, 575, 520 7, 807, 590 80, 848, 455 28, 338, 638 10, 060, 480 56, 118, 000 7, 532, 023 256, 600 23, 893, 648 8, 104, 858 9, 811, 992 134, 857 5, 390, 172 194, 596 11, 476, 404 118, 813 5, 884, 488 38, 132 10, 604, 034 20, 237, 040 9, 867, 744 155, 191, 008 6, 630, 498 73, 873, 611 11, 120, 970 3, 587, 108 10, 968, 534 812, 960 10, 622, 500 41, 664, 788 2, 061, 602 7, 118, 923 49, 905, 818 14, 474, 534 11, 755, 518 10, 370, 314 596, 853, 152 23, 501, 502 2, 174, 554, 606 65, 548, 876 212, 143, 820 51, 775, 020 79, 123, 389 12, 682, 170 4, 247, 257 6, 015, 322 14, 629, 738 24, 914, 304

THE UNITED KINGDOM—Continued.

Quantities and value of principal

Principal articles.	1873.	1874.	1875.	1876.	1877.
Wood and timber.....dollars..	92, 879, 445	108, 873, 971	76, 835, 880	95, 075, 362	100, 251, 140
Wool, sheep and lamb's.....pounds	313, 496, 742	340, 288, 080	360, 903, 270	386, 568, 323	406, 369, 953
Woolen manufactures, including yarn, dollars.....	92, 361, 687	99, 914, 718	111, 225, 739	112, 968, 430	117, 627, 246
.....dollars.....	26, 869, 271	27, 216, 943	28, 185, 444	32, 357, 680	33, 969, 777
GRAND TOTAL IMPORTS.....dollars.	1,804, 456, 428	1,798, 601, 927	1,817, 346, 344	1,833, 251, 868	1,916, 879, 655

Quantities and value of prin-

Articles.	1873.	1874.	1875.	1876.	1877.
PRODUCE OF THE UNITED KINGDOM.					
Alkali.....{ tons.....	266, 030	280, 594	281, 375	305, 546	318, 416
.....{ dollars.....	14, 191, 229	12, 715, 645	11, 177, 094	10, 803, 129	10, 678, 203
Apparel and slops.....{ pounds	16, 705, 813	15, 556, 146	15, 480, 680	14, 395, 578	13, 773, 600
Arms, ammunition, and military stores, dollars.....	6, 713, 225	8, 642, 248	9, 964, 866	6, 021, 124	6, 728, 480
Bags and sacks, empty.....dollars.	9, 297, 924	8, 505, 008	6, 144, 537	5, 888, 998	7, 380, 450
Beer and ale.....{ barrels	11, 771, 017	11, 858, 570	10, 180, 106	9, 345, 644	9, 240, 800
.....{ dollars.....	9, 408, 112	9, 447, 536	9, 607, 024	9, 193, 968	9, 458, 576
Books, printed.....{ pounds	4, 441, 262	4, 396, 852	4, 453, 466	4, 285, 738	4, 363, 026
Caoutchouc manufactures.....dollars.	4, 420, 105	4, 382, 270	4, 099, 118	3, 749, 140	3, 803, 698
Carriages, railway.....dollars.	1, 779, 227	1, 782, 303	2, 146, 186	2, 279, 126	985, 632
Cement.....{ tons.....	244, 007	274, 419	274, 983	275, 263	251, 507
.....{ dollars.....	3, 209, 758	3, 532, 938	3, 124, 125	3, 049, 665	2, 817, 648
Coal.....{ tons.....	13, 526, 807	14, 986, 799	14, 656, 431	17, 573, 250	16, 696, 697
.....{ dollars.....	60, 121, 301	65, 204, 966	44, 497, 193	41, 180, 972	36, 341, 617
Cotton manufactures:					
Yarn.....{ pounds.....	214, 778, 827	220, 682, 919	215, 609, 580	232, 554, 627	227, 651, 402
.....{ dollars.....	77, 251, 838	70, 554, 686	64, 020, 100	62, 119, 222	59, 257, 756
Piece goods, plain.....{ yards.....	2, 384, 174, 306	2, 586, 709, 684	2, 549, 145, 807	2, 667, 423, 176	2, 699, 282, 118
.....{ dollars.....	166, 617, 669	168, 837, 767	161, 619, 363	152, 867, 801	154, 595, 370
Piece goods, printed or colored.....{ yards.....	1, 083, 306, 079	1, 093, 101, 107	1, 001, 035, 569	990, 147, 298	1, 125, 255, 197
.....{ dollars.....	104, 882, 542	95, 269, 151	96, 758, 661	89, 445, 831	98, 262, 955
All other manufactures*.....dollars.	27, 235, 396	26, 177, 953	26, 452, 650	23, 866, 308	24, 331, 867
Earthen and china ware.....dollars.	10, 721, 092	9, 048, 154	9, 034, 575	8, 607, 920	9, 005, 055
Fish, principally herring.....dollars.	6, 298, 655	7, 004, 315	5, 795, 458	4, 922, 227	6, 539, 631
Glass and glassware.....dollars.	6, 525, 201	5, 751, 883	5, 189, 158	4, 456, 829	4, 152, 719
Haberdaßery and millinery.....dollars.	32, 062, 669	29, 842, 636	23, 922, 961	18, 323, 031	18, 505, 446
Hardware and cutlery.....dollars.	24, 091, 290	21, 424, 819	20, 723, 649	16, 928, 770	16, 221, 484
Hats, of all sorts.....{ dozens.....	597, 943	632, 686	737, 686	776, 996	888, 537
.....{ dollars.....	4, 280, 625	4, 592, 510	5, 080, 838	4, 868, 330	5, 377, 862
Implements and tools of industry.....dollars.	2, 433, 791	2, 012, 122	2, 023, 369	2, 005, 309	1, 976, 426
Jute piece goods.....{ yards.....	95, 935, 108	112, 810, 415	102, 105, 579	120, 813, 966	116, 753, 003
.....{ dollars.....	7, 731, 531	8, 163, 663	6, 828, 285	7, 573, 124	7, 520, 403
Leather.....{ pounds.....	13, 041, 840	16, 603, 552	18, 832, 464	16, 790, 032	16, 176, 272
.....{ dollars.....	5, 097, 698	6, 412, 104	7, 269, 739	5, 886, 170	5, 662, 551
Leather manufactures.....dollars.	11, 994, 315	10, 835, 671	11, 592, 738	10, 358, 648	9, 690, 133
Linen yarn.....{ pounds.....	28, 734, 212	27, 154, 906	27, 887, 681	22, 278, 259	19, 216, 001
.....{ dollars.....	9, 607, 394	8, 340, 883	9, 018, 624	7, 044, 653	6, 277, 754
Linen:					
Piece goods.....{ yards.....	195, 404, 195	180, 926, 285	186, 763, 770	146, 666, 075	159, 274, 650
.....{ dollars.....	31, 422, 033	29, 969, 043	30, 978, 870	23, 400, 851	24, 638, 484
All other manufactures of.....dollars.	4, 086, 015	4, 625, 184	4, 565, 522	3, 915, 440	3, 716, 909
Machinery, steam engines.....dollars.	14, 228, 219	15, 871, 229	12, 788, 278	9, 424, 109	9, 811, 679
of other sorts.....dollars.	34, 470, 636	31, 761, 213	31, 230, 746	25, 618, 562	22, 861, 459
Manure.....dollars.	3, 263, 733	3, 195, 208	3, 091, 424	4, 303, 185	4, 959, 693
Medicines, drugs, and medicinal preparations.....dollars.	3, 286, 667	3, 209, 840	3, 373, 797	3, 126, 399	3, 374, 439
Metals (quantities):					
Iron, old.....{ tons.....	67, 579	48, 318	34, 293	25, 296	20, 218
pig and puddled.....{ tons.....	1, 279, 113	869, 250	1, 061, 566	1, 019, 206	987, 906
bar, angle, bolt, and rod.....{ tons.....	321, 266	292, 027	309, 196	255, 298	273, 285

* For 1884, and subsequent years, mixed materials in which cotton predominates are included under the heading of "woolen and worsted stuffs."

† Sail cloth included with "all other manufactures."

THE UNITED KINGDOM.—Continued.

articles imported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
69, 143, 949	49, 385, 467	73, 344, 706	75, 415, 808	85, 579, 567	86, 229, 328	75, 276, 637	76, 360, 806
395, 474, 457	412, 784, 316	460, 960, 907	447, 521, 441	484, 930, 324	494, 428, 802	518, 637, 800	501, 130, 837
110, 745, 403	118, 014, 205	127, 304, 347	125, 593, 631	120, 263, 096	120, 847, 001	126, 565, 495	130, 991, 094
36, 534, 826	34, 290, 833	46, 204, 904	35, 714, 089	37, 632, 763	40, 121, 788	42, 845, 385	45, 556, 990
1,792,225,806	1,764, 140, 513	1,998, 575, 686	1,929, 829, 297	2,007, 275, 295	2,074, 693, 074	1,895,490,245	1,802,904,251

cipal articles-exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
321, 083	354, 907	385, 751	381, 326	377, 205	389, 032	367, 494	373, 061
9, 596, 716	9, 768, 731	11, 654, 679	10, 156, 496	10, 049, 537	10, 327, 315	10, 155, 500	9, 505, 188
15, 437, 362	15, 595, 453	15, 610, 820	13, 036, 323	20, 263, 196	17, 660, 287	19, 131, 307	20, 223, 432
5, 966, 325	5, 308, 155	7, 080, 791	6, 768, 230	6, 936, 804	7, 657, 034	8, 433, 155	8, 806, 320
7, 563, 372	6, 967, 781	7, 053, 888	7, 310, 757	5, 735, 961	5, 529, 135	4, 890, 671	3, 790, 314
8, 556, 963	8, 530, 909	8, 424, 834	8, 394, 809	9, 080, 461	8, 776, 459	7, 979, 999	7, 996, 158
9, 620, 352	10, 689, 168	10, 887, 296	12, 318, 780	13, 619, 984	13, 778, 800	13, 909, 768	13, 336, 224
4, 329, 511	4, 649, 154	4, 715, 478	5, 245, 251	5, 684, 217	5, 710, 153	5, 688, 698	5, 411, 610
3, 418, 072	3, 681, 945	4, 101, 048	4, 564, 376	4, 857, 711	5, 201, 974	4, 882, 998	4, 426, 488
908, 494	617, 803	1, 410, 722	1, 105, 349	3, 004, 204	5, 602, 155	6, 248, 798	5, 048, 082
251, 081	248, 470	310, 789	355, 830	381, 910	448, 851	433, 513	412, 043
2, 786, 520	2, 682, 176	3, 317, 315	3, 601, 485	3, 910, 361	4, 497, 804	4, 233, 133	3, 941, 460
16, 798, 350	17, 633, 892	20, 038, 123	21, 011, 190	22, 317, 132	24, 371, 437	26, 157, 011	24, 981, 369
34, 068, 775	33, 018, 510	38, 089, 346	40, 266, 810	43, 517, 115	48, 457, 655	48, 841, 477	48, 709, 350
250, 631, 800	235, 625, 500	215, 544, 800	254, 939, 902	238, 254, 700	264, 772, 000	270, 904, 600	243, 869, 900
63, 264, 350	68, 839, 830	55, 784, 189	63, 982, 158	62, 522, 495	65, 657, 298	67, 131, 559	57, 665, 358
2,539,166,400	2,652,440,900	3,058,965,900	3,361,298,600	2,959,882,500	3,136,180,200	3,095,353,700	3,149,905,600
141, 760, 936	142, 173, 526	168, 910, 014	180, 643, 853	162, 682, 006	165, 973, 478	154, 792, 638	148, 256, 730
1,067,298,400	1,057,726,500	1,416,348,200	1,386,337,500	1,349,874,700	1,379,932,200	1,321,645,500	1,224,423,800
90, 287, 530	83, 840, 940	108, 754, 018	103, 200, 618	102, 071, 391	101, 239, 442	96, 298, 378	86, 051, 640
25, 183, 961	26, 050, 601	31, 733, 392	36, 544, 118	41, 093, 074	38, 654, 161	35, 372, 718	23, 937, 546
8, 719, 899	8, 747, 786	10, 038, 417	10, 709, 333	11, 222, 411	11, 339, 192	9, 504, 673	8, 933, 650
6, 225, 174	6, 887, 873	8, 647, 208	7, 902, 773	8, 829, 172	9, 146, 966	10, 280, 339	9, 997, 272
3, 673, 396	3, 803, 540	4, 478, 529	5, 127, 277	5, 276, 400	5, 270, 349	5, 211, 697	4, 695, 734
19, 252, 287	16, 946, 431	18, 831, 149	20, 368, 284	20, 696, 179	18, 855, 672	13, 860, 195	11, 221, 252
16, 027, 974	11, 717, 397	17, 111, 467	18, 880, 841	19, 960, 628	18, 256, 342	15, 273, 075	13, 860, 234
889, 506	779, 493	922, 628	1, 025, 931	1, 205, 612	1, 057, 826	1, 074, 794	1, 041, 844
5, 256, 809	4, 362, 613	4, 984, 260	5, 450, 627	6, 400, 756	5, 526, 233	5, 597, 150	5, 401, 899
2, 045, 695	1, 720, 056	1, 839, 087	2, 051, 654	2, 872, 790	4, 148, 039	4, 833, 289	4, 259, 790
122, 961, 200	164, 054, 600	183, 202, 400	204, 290, 200	212, 483, 600	227, 256, 000	242, 846, 700	215, 078, 500
7, 721, 019	9, 540, 919	10, 961, 745	11, 483, 757	11, 018, 574	12, 157, 727	11, 935, 590	9, 255, 384
17, 030, 320	24, 537, 680	16, 463, 776	20, 312, 320	18, 536, 336	19, 625, 535	19, 878, 208	20, 606, 544
8, 637, 639	7, 324, 637	5, 601, 928	7, 914, 092	7, 020, 256	7, 957, 069	8, 153, 549	8, 289, 290
9, 744, 240	10, 009, 787	10, 172, 991	11, 073, 679	13, 457, 787	11, 633, 290	10, 176, 731	11, 214, 936
18, 030, 320	24, 627, 680	16, 463, 786	20, 309, 320	18, 536, 336	17, 678, 300	19, 533, 700	16, 600, 200
5, 893, 301	5, 229, 200	4, 734, 625	5, 140, 903	5, 041, 662	5, 141, 452	5, 516, 682	4, 794, 590
157, 219, 360	156, 220, 700	161, 677, 200	170, 704, 700	172, 761, 600	158, 739, 600	150, 658, 000	145, 405, 800
22, 954, 183	22, 427, 432	24, 149, 452	24, 298, 476	24, 281, 624	22, 463, 260	20, 168, 062	18, 761, 868
3, 844, 828	4, 171, 965	4, 213, 600	4, 114, 835	4, 725, 752	3, 973, 045	5, 006, 971	5, 349, 079
11, 701, 782	10, 683, 192	13, 542, 098	15, 391, 251	17, 282, 675	20, 884, 567	20, 305, 872	18, 102, 525
24, 738, 519	24, 693, 339	31, 478, 549	33, 015, 370	40, 717, 801	44, 400, 207	43, 228, 247	35, 779, 806
4, 399, 345	4, 980, 684	5, 484, 627	5, 871, 027	9, 901, 536	10, 507, 456	10, 213, 586	8, 393, 280
3, 779, 841	3, 814, 181	3, 958, 042	4, 562, 398	4, 545, 524	4, 484, 074	4, 340, 874	4, 095, 522
36, 249	263, 367	273, 247	138, 571	147, 866	109, 172	76, 818	93, 770
1, 033, 850	1, 870, 248	1, 828, 224	1, 660, 233	1, 969, 041	1, 741, 734	1, 421, 925	1, 079, 024
250, 733	258, 973	340, 717	329, 684	350, 734	342, 863	332, 057	290, 919

THE UNITED KINGDOM—Continued.

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
PRODUCE OF THE UNITED KINGDOM—continued.					
Metals (quantities)—Continued.					
Iron, railroad, of all sorts..... tons..	870, 215	876, 585	611, 490	450, 065	568, 046
hoops, sheets, and boiler plates..... tons..	225, 758	188, 641	229, 021	215, 020	224, 131
tinned plates..... tons..	185, 115	137, 715	154, 967	148, 472	171, 613
wire..... tons..	32, 078	41, 095	48, 407	49, 966	57, 223
cast, wrought, &c..... tons..	815, 840	288, 117	268, 648	273, 840	284, 558
steel, unwrought..... tons..	44, 148	85, 213	33, 441	26, 870	27, 207
steel manufactures..... tons..	11, 730	11, 263	12, 249	11, 517	12, 670
Total iron and steel..... tons..	3, 312, 748	2, 788, 224	2, 753, 297	2, 486, 050	2, 682, 866
Copper..... tons..	14, 549	11, 986	12, 486	18, 340	12, 987
manufactured..... tons..	24, 652	27, 516	28, 719	26, 525	31, 692
Metals (value):					
Iron, old..... dollars..	1, 941, 677	1, 192, 552	499, 788	466, 448	489, 830
pig and puddled..... dollars..	84, 593, 811	17, 854, 347	16, 766, 095	13, 814, 229	12, 289, 263
bar, angle, bolt, rod..... dollars..	18, 254, 063	14, 845, 098	13, 247, 908	9, 454, 863	9, 370, 581
railroad, of all sorts..... dollars..	50, 633, 968	46, 841, 827	26, 506, 643	17, 962, 510	18, 798, 395
hoops, sheets, and boiler plates..... dollars..	18, 093, 241	14, 460, 488	16, 058, 150	13, 867, 744	13, 279, 041
tinned plates..... dollars..	19, 211, 784	13, 053, 977	16, 058, 159	13, 868, 744	14, 740, 992
wire..... dollars..	3, 365, 404	3, 741, 845	3, 780, 980	3, 796, 379	3, 656, 071
cast, wrought, &c..... dollars..	26, 626, 725	24, 895, 778	21, 104, 511	19, 641, 292	17, 717, 912
steel, unwrought..... dollars..	7, 109, 485	5, 860, 074	8, 134, 242	4, 269, 082	3, 926, 156
steel manufactures..... dollars..	8, 542, 119	8, 848, 658	4, 022, 904	3, 679, 783	3, 894, 790
Total iron and steel..... dollars..	183, 372, 277	151, 584, 644	126, 188, 489	100, 941, 074	97, 753, 031
Copper..... dollars..	5, 893, 294	4, 580, 161	4, 763, 548	4, 779, 572	4, 259, 100
manufactures..... dollars..	10, 083, 821	10, 651, 375	10, 970, 842	9, 480, 060	10, 605, 419
Oil, seed..... gallons..	11, 157, 072	13, 096, 478	15, 612, 828	18, 237, 804	16, 548, 684
Painters' colors and materials..... dollars..	7, 149, 405	7, 431, 003	6, 078, 894	9, 253, 877	9, 291, 897
Paper and paper hangings..... pounds..	4, 922, 349	5, 643, 597	6, 922, 343	5, 198, 484	5, 811, 864
Paper and paper hangings..... dollars..	43, 076, 656	39, 020, 016	42, 932, 648	39, 074, 464	42, 363, 284
Provisions of all kinds..... dollars..	5, 662, 542	5, 169, 962	5, 368, 031	4, 959, 421	5, 166, 992
Salt..... tons..	3, 780, 293	3, 548, 850	3, 890, 409	3, 470, 978	3, 764, 561
Silk, broad piece goods..... yards..	941, 841	927, 482	1, 027, 616	970, 200	933, 745
Silk, other manufactures..... dollars..	3, 834, 802	3, 219, 230	3, 288, 062	2, 598, 900	2, 248, 115
Skins and furs..... dollars..	2, 983, 712	4, 025, 459	3, 654, 660	3, 943, 787	4, 356, 097
Soap..... pounds..	2, 567, 373	3, 285, 095	2, 785, 869	3, 149, 508	3, 408, 843
Spirits..... gallons..	6, 562, 623	6, 927, 891	6, 063, 993	5, 572, 077	4, 878, 201
Stationery, other than paper..... dollars..	4, 614, 430	5, 319, 323	4, 990, 933	4, 139, 976	4, 178, 876
Sugar, refined..... pounds..	20, 550, 000	24, 542, 448	28, 113, 344	28, 543, 536	32, 490, 016
Telegraph wire and apparatus..... dollars..	1, 181, 208	1, 349, 758	1, 599, 083	1, 522, 191	1, 776, 787
Wool, sheep and lambs'..... pounds..	1, 685, 558	1, 213, 162	1, 090, 554	1, 808, 456	1, 530, 048
Woolen and worsted yarn..... pounds..	1, 025, 285	740, 994	1, 235, 027	1, 542, 904	1, 818, 631
Stationery, other than paper..... dollars..	3, 275, 251	3, 334, 232	3, 339, 704	3, 207, 163	3, 191, 183
Sugar, refined..... pounds..	78, 030, 808	103, 302, 304	108, 892, 456	132, 435, 024	125, 332, 592
Telegraph wire and apparatus..... dollars..	5, 082, 350	5, 938, 392	6, 512, 242	6, 628, 593	7, 494, 898
Wool, sheep and lambs'..... pounds..	11, 422, 108	10, 268, 313	9, 689, 493	3, 960, 166	6, 056, 259
Woolen and worsted yarn..... pounds..	7, 034, 735	10, 077, 619	10, 336, 523	9, 817, 249	9, 548, 999
Wool, sheep and lambs'..... pounds..	3, 017, 821	4, 473, 217	4, 511, 363	3, 722, 043	3, 429, 263
Woolen and worsted yarn..... pounds..	34, 744, 507	34, 981, 008	31, 723, 627	30, 854, 160	26, 972, 536
Woolen manufactures:	20, 212, 376	27, 014, 502	24, 782, 032	21, 467, 791	17, 542, 006
Cloths, coatings, stuffs, &c..... yards..	38, 633, 833	40, 331, 686	42, 058, 354	40, 479, 373	44, 125, 206
Worsted, coatings, and stuffs..... yards..	32, 074, 226	32, 281, 099	31, 351, 987	31, 353, 953	31, 924, 537
Carpets and druggets..... yards..	282, 884, 692	281, 135, 081	251, 845, 549	221, 561, 990	194, 777, 034
All other woolen manufactures..... yards..	60, 388, 077	57, 776, 030	54, 237, 182	44, 428, 200	37, 545, 612
Carpets and druggets..... yards..	9, 921, 100	9, 208, 271	7, 522, 660	6, 298, 479	6, 454, 449
All other woolen manufactures..... yards..	7, 763, 277	7, 197, 135	5, 637, 498	4, 431, 727	4, 120, 128
Total exports, produce of the United Kingdom..... dollars..	1, 240, 099, 971	1, 164, 252, 468	1, 080, 044, 580	975, 155, 131	906, 620, 296
FOREIGN AND COLONIAL PRODUCE.					
Arms and ammunition..... dollars..	823, 774	1, 215, 179	978, 148	411, 428	454, 254
Bacon and hams..... pounds..	44, 528, 848	30, 466, 912	25, 189, 016	42, 387, 050	48, 169, 968
Butter and butterine..... pounds..	4, 323, 271	2, 883, 739	2, 579, 605	4, 348, 553	4, 184, 296
Cacao..... pounds..	2, 492, 672	2, 599, 968	3, 474, 688	2, 568, 656	4, 703, 216
Cashew..... pounds..	582, 164	753, 870	906, 837	794, 600	1, 163, 168
Cocoa..... pounds..	6, 092, 240	5, 981, 360	7, 812, 784	7, 801, 932	8, 906, 128
Coffee..... pounds..	2, 744, 685	2, 606, 800	3, 007, 941	3, 120, 314	3, 380, 759

* Prior to 1882 woolen stuffs were

THE UNITED KINGDOM—Continued.

articles exported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
492, 119	519, 543	770, 940	919, 296	1, 049, 883	1, 087, 704	815, 969	785, 704
216, 144	215, 684	240, 977	841, 521	883, 711	889, 516	391, 094	854, 049
173, 868	220, 636	811, 781	272, 690	296, 859	291, 710	323, 253	328, 225
48, 921	41, 581	66, 281	84, 144	97, 052	70, 134	59, 324	60, 602
280, 544	292, 203	308, 800	326, 865	367, 653	398, 543	421, 521	382, 759
27, 027	34, 788	77, 343	187, 519	193, 008	81, 907	68, 761	66, 529
13, 023	12, 475	15, 975	18, 338	20, 726	15, 231	12, 392	14, 179
2, 572, 476	3, 229, 498	4, 249, 285	4, 274, 253	4, 878, 088	4, 528, 514	3, 917, 624	3, 455, 760
19, 492	18, 771	12, 306	20, 944	14, 245	18, 961	20, 028	21, 052
30, 283	35, 746	37, 533	36, 486	37, 907	40, 119	44, 819	47, 084
602, 523	3, 894, 833	5, 062, 185	2, 371, 908	2, 464, 802	1, 642, 656	1, 085, 821	1, 270, 404
12, 001, 987	15, 210, 890	25, 362, 688	19, 949, 211	24, 116, 219	19, 816, 436	14, 313, 784	10, 171, 008
7, 806, 219	7, 465, 611	11, 549, 202	9, 783, 826	11, 170, 870	9, 868, 482	9, 489, 649	7, 875, 630
15, 995, 888	13, 960, 872	24, 651, 636	27, 538, 928	31, 041, 884	29, 229, 323	20, 130, 426	18, 979, 795
12, 300, 791	10, 246, 464	16, 441, 963	16, 547, 279	19, 166, 897	18, 982, 902	17, 947, 985	15, 882, 926
13, 279, 357	17, 048, 768	21, 650, 751	20, 232, 821	22, 660, 728	22, 868, 259	23, 070, 046	20, 060, 622
3, 064, 846	2, 415, 785	4, 023, 667	4, 863, 956	6, 466, 444	4, 504, 233	3, 860, 070	3, 249, 512
17, 068, 821	16, 686, 906	18, 429, 742	19, 266, 342	22, 112, 320	22, 436, 968	22, 262, 081	19, 503, 666
3, 698, 655	3, 976, 943	6, 172, 132	9, 093, 842	9, 886, 887	6, 787, 262	4, 993, 558	4, 993, 558
3, 581, 042	3, 342, 052	4, 018, 340	4, 448, 552	4, 580, 715	2, 821, 930	1, 955, 567	1, 968, 786
89, 391, 109	94, 368, 684	137, 962, 306	134, 061, 665	153, 667, 766	138, 948, 451	119, 044, 867	104, 065, 959
5, 899, 753	5, 158, 457	5, 144, 806	6, 261, 517	4, 418, 911	5, 555, 145	5, 118, 236	4, 379, 378
11, 142, 469	11, 322, 565	12, 652, 709	12, 601, 888	13, 944, 409	13, 892, 174	14, 418, 095	12, 480, 966
19, 966, 800	12, 605, 800	14, 508, 000	13, 383, 700	14, 041, 900	20, 134, 700	16, 063, 100	16, 678, 700
9, 421, 820	6, 748, 742	7, 879, 698	7, 026, 603	7, 018, 185	9, 056, 707	7, 124, 884	7, 458, 642
5, 504, 287	5, 010, 242	5, 655, 621	5, 851, 056	6, 514, 694	5, 919, 057	6, 268, 257	5, 943, 294
44, 205, 840	48, 012, 832	58, 445, 856	68, 873, 584	73, 240, 272	73, 336, 432	82, 364, 720	88, 851, 424
5, 177, 587	5, 163, 079	6, 070, 068	6, 823, 100	7, 252, 162	6, 937, 757	7, 150, 917	7, 674, 912
4, 361, 306	4, 480, 847	5, 030, 965	5, 598, 074	4, 738, 130	3, 994, 531	3, 787, 288	3, 066, 519
915, 217	1, 074, 801	1, 177, 889	1, 126, 978	1, 070, 857	1, 124, 831	1, 061, 099	1, 014, 056
2, 443, 632	2, 632, 472	2, 635, 041	2, 817, 773	2, 753, 965	3, 134, 744	2, 972, 070	3, 297, 984
4, 819, 470	4, 724, 010	6, 218, 510	7, 051, 060	7, 032, 940	7, 037, 992	6, 808, 560	6, 016, 042
3, 892, 860	3, 860, 827	4, 921, 219	5, 595, 969	5, 595, 969	5, 097, 471	5, 398, 571	5, 485, 424
5, 432, 692	4, 367, 658	4, 947, 184	6, 868, 569	6, 817, 618	5, 694, 442	5, 178, 922	4, 079, 970
5, 015, 554	5, 707, 475	7, 989, 096	8, 039, 141	7, 78, 461	7, 084, 878	6, 385, 982	4, 086, 288
37, 586, 204	42, 997, 920	48, 782, 406	39, 620, 672	45, 357, 944	43, 788, 358	56, 361, 056	45, 036, 544
1, 909, 190	2, 102, 517	2, 139, 761	1, 982, 525	2, 28, 196	2, 186, 047	2, 661, 899	2, 295, 899
1, 447, 711	1, 692, 493	2, 060, 193	2, 732, 293	2, 009, 878	2, 732, 856	2, 635, 835	2, 760, 041
1, 917, 678	2, 199, 208	2, 644, 929	3, 064, 840	3, 24, 825	3, 984, 870	3, 940, 430	4, 239, 378
3, 147, 622	3, 236, 736	3, 517, 532	3, 872, 375	4, 03, 776	4, 390, 374	4, 116, 697	4, 149, 468
116, 709, 600	100, 879, 216	108, 129, 952	101, 827, 824	117, 70, 944	129, 448, 144	144, 962, 832	111, 367, 536
5, 852, 674	4, 719, 459	5, 476, 379	5, 238, 969	5, 29, 433	6, 010, 275	5, 400, 728	3, 704, 292
3, 625, 327	12, 158, 096	6, 322, 413	9, 640, 602	5, 066, 846	6, 016, 160	12, 194, 484	3, 742, 696
6, 618, 200	15, 708, 900	17, 197, 300	14, 688, 900	15, 346, 400	19, 443, 100	18, 128, 800	23, 459, 800
2, 062, 420	4, 574, 611	5, 769, 369	4, 346, 619	4, 261, 948	4, 905, 795	4, 015, 285	4, 537, 296
31, 189, 600	33, 378, 500	26, 464, 300	29, 731, 400	31, 832, 700	33, 488, 500	39, 272, 100	43, 491, 600
18, 997, 861	18, 061, 158	16, 255, 436	15, 076, 873	16, 517, 415	15, 875, 132	18, 907, 466	21, 800, 894
43, 529, 800	46, 258, 900	50, 000, 200	55, 679, 400	89, 678, 500	88, 229, 200	95, 393, 200	86, 830, 500
30, 147, 100	20, 868, 457	32, 740, 464	36, 735, 898	45, 772, 787	45, 069, 929	47, 478, 322	43, 289, 478
192, 483, 800	186, 646, 100	189, 940, 700	192, 106, 100	146, 895, 600	143, 404, 700	167, 687, 100	157, 888, 100
26, 173, 967	33, 638, 646	35, 192, 269	35, 174, 270	27, 325, 972	28, 021, 151	33, 441, 480	31, 766, 418
6, 626, 200	6, 686, 000	9, 828, 300	9, 711, 200	11, 818, 700	10, 699, 300	11, 540, 800	11, 062, 500
4, 064, 436	3, 903, 712	5, 509, 029	5, 650, 169	6, 469, 096	6, 118, 215	6, 114, 410	5, 766, 390
10, 597, 405	9, 674, 452	10, 467, 249	10, 566, 418	11, 687, 703	9, 804, 399	10, 828, 964	10, 754, 694
937, 245, 722	930, 844, 344	1, 084, 078, 768	1, 137, 350, 213	1, 173, 530, 407	1, 165, 425, 439	1, 132, 502, 676	1, 035, 396, 270
196, 879	319, 161	1, 440, 132	276, 086	390, 875	1, 711, 891	896, 728	1, 231, 524
54, 641, 728	43, 777, 468	47, 471, 408	31, 765, 440	12, 990, 208	23, 611, 168	20, 316, 168	43, 976, 176
3, 726, 560	2, 626, 504	3, 794, 494	3, 094, 999	1, 469, 100	2, 416, 815	2, 040, 184	3, 197, 394
4, 518, 712	4, 700, 528	4, 830, 000	7, 228, 928	6, 004, 208	5, 898, 028	7, 996, 800	9, 199, 233
1, 032, 128	973, 185	1, 065, 988	1, 442, 555	1, 259, 892	1, 306, 941	1, 718, 141	1, 897, 830
9, 786, 448	10, 161, 760	8, 593, 964	10, 630, 256	11, 385, 360	11, 487, 840	12, 303, 872	10, 058, 720
3, 594, 869	4, 877, 958	5, 169, 346	5, 709, 669	7, 472, 576	7, 111, 881	5, 615, 667	4, 682, 610

included with worsted stuffs.

THE UNITED KINGDOM—Continued.

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
FOREIGN AND COLONIAL PRODUCE—continued.					
Coffee..... { pounds ..	154,611,184	120,935,808	135,273,056	137,176,256	124,506,256
..... { dollars ..	28,296,052	25,435,704	27,653,969	28,147,448	25,664,999
Cereals and flour..... { pounds ..	4,234,774	4,133,683	617,977	2,780,071	3,647,308
Cotton, raw..... { pounds ..	220,000,256	257,767,632	262,853,808	203,305,872	169,396,304
..... { dollars ..	31,769,848	33,208,944	31,900,676	22,037,495	19,546,157
Cotton manufactures..... { pounds ..	1,671,461	1,497,269	1,274,170	1,482,290	1,243,441
Drugs, dyes, and tanning stuffs..... { dollars ..	12,955,901	12,326,364	11,887,084	11,889,454	10,033,762
Feathers, ornamental..... { pounds ..	611,164	803,664	1,050,542	1,055,432	968,904
Fish..... { pounds ..	6,244,336	5,848,528	7,397,488	6,978,160	8,857,968
..... { dollars ..	1,012,114	847,091	933,081	867,029	1,103,132
Fruit (almonds, currants, raisins, oranges, lemons, &c.)..... { dollars ..	2,664,675	2,683,434	2,678,166	2,939,192	2,898,506
Gum, of all sorts..... { pounds ..	14,568,712	18,377,760	17,417,120	14,201,264	13,160,816
..... { dollars ..	2,646,833	3,627,212	3,264,350	2,316,757	1,983,113
Hemp, dressed and undressed..... { pounds ..	15,603,000	13,872,880	16,339,616	15,382,624	16,619,568
..... { dollars ..	1,153,293	969,075	1,094,263	997,967	1,069,346
Hides, raw..... { pounds ..	43,981,392	43,415,120	42,946,848	33,514,800	39,875,245
..... { dollars ..	7,247,490	7,396,224	6,816,937	5,086,490	5,931,620
Jute..... { pounds ..	88,518,528	80,262,672	117,643,568	104,570,704	106,427,424
..... { dollars ..	3,158,417	2,983,588	3,878,898	3,425,833	3,921,009
Leather..... { pounds ..	3,955,261	6,295,464	6,125,398	6,745,309	9,156,818
..... { dollars ..	1,205,431	2,331,483	2,237,408	2,006,011	2,968,746
Metals:					
Copper, unwrought and part wrought..... { tons ..	22,902	27,229	16,454	19,489	15,856
..... { dollars ..	8,910,791	9,788,149	6,116,485	6,728,155	5,638,688
Iron bars, angle, bolt and rod..... { tons ..	18,218	27,350	38,450	40,481	47,275
..... { dollars ..	1,312,895	1,772,282	2,455,782	2,165,397	1,985,466
Iron and steel manufactures..... { tons ..	10,566	13,249	14,285	15,247	27,402
..... { dollars ..	1,411,261	2,009,236	1,595,995	1,254,128	1,708,091
Tin in blocks, ingots, bars, or slabs..... { tons ..	1,637	2,607	4,731	5,880	4,362
..... { dollars ..	939,652	1,148,321	1,784,398	1,939,082	1,344,237
Nuts, for expressing oil therefrom..... { dollars ..					
..... { pounds ..	294,457	604,958	731,435	816,533	559,269
Oil, palm, cocoanut, and olive..... { dollars ..	6,191,504	5,795,565	6,171,194	5,524,799	6,218,229
..... { pounds ..	2,161,688	2,422,299	2,443,397	1,949,125	2,261,446
Quicksilver..... { dollars ..	1,916,347	3,169,245	1,922,631	1,182,346	1,101,976
Seeds, linseed, rape, &c..... { pounds ..	875,514	1,390,660	3,569,641	4,584,308	4,477,178
Silk, raw..... { dollars ..	17,983,963	14,399,189	9,045,437	13,614,028	7,077,267
Silk manufactures..... { pounds ..	1,577,570	1,665,531	1,596,150	1,472,842	1,113,572
Spices..... { dollars ..	8,229,805	3,905,891	3,983,072	3,302,060	3,246,528
Spirits, brandy, rum, &c. { proof gallons ..	3,159,679	3,425,104	3,067,146	3,219,122	3,161,571
..... { dollars ..	2,772,387	2,886,166	2,619,297	2,706,398	2,670,395
Sugar, refined and unrefined..... { pounds ..	1,167,464	3,117,503	4,713,593	5,490,905	4,538,506
Tallow and stearine..... { pounds ..	4,645,648	8,317,596	6,963,824	7,963,212	11,048,240
..... { dollars ..	413,907	727,488	583,837	684,298	958,756
Tea..... { pounds ..	33,801,588	31,358,495	32,226,698	29,129,312	35,762,420
..... { dollars ..	12,760,576	12,549,637	12,429,759	11,027,510	11,532,518
Tobacco, manufactured and unmanufactured..... { pounds ..	17,713,222	19,191,836	14,690,209	13,487,739	13,801,200
..... { dollars ..	3,222,811	3,679,110	3,490,772	3,082,626	2,824,773
Wine..... { gallons ..	1,887,938	1,676,993	1,639,989	1,587,227	1,484,420
..... { dollars ..	4,454,579	4,010,827	3,901,930	3,578,160	3,318,009
Wood and timber..... { pounds ..	2,216,500	2,792,109	2,546,742	1,238,425	1,454,875
Wool, sheep and lambs'..... { pounds ..	123,246,026	144,279,663	172,073,306	172,920,050	187,402,261
..... { dollars ..	43,204,904	49,787,225	58,224,137	55,115,535	57,481,000
Woolen manufactures..... { pounds ..	1,501,006	920,265	1,070,279	1,485,498	1,412,967
Total exports foreign and colonial produce..... { dollars ..					
..... { pounds ..	271,383,187	282,328,787	282,591,310	272,627,754	259,781,361
Total exports British produce..... { dollars ..	1,240,099,971	1,164,252,468	1,084,944,580	975,155,131	966,620,236
GRAND TOTAL EXPORTS..... { pounds ..	1,511,483,158	1,446,581,255	1,367,535,890	1,248,082,885	1,226,401,657

THE UNITED KINGDOM—Continued.

articles exported—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
114,835,980	144,786,728	133,187,488	108,164,784	113,830,976	110,175,744	109,071,088	83,727,952
24,968,541	28,334,247	25,554,048	19,833,879	19,306,863	16,675,987	15,821,011	11,786,414
8,423,385	8,078,747	4,628,701	2,970,835	4,484,162	8,003,150	3,585,222	2,105,838
150,257,936	188,201,488	224,577,860	207,710,608	264,998,180	247,221,800	251,661,648	206,333,882
16,727,571	20,989,840	26,561,806	24,185,960	30,536,810	25,534,066	26,144,580	21,692,610
1,347,552	3,005,720	3,282,770	2,755,819	2,564,788	2,090,028	1,917,644	2,749,302
14,529,650	15,968,843	15,968,026	17,752,550	18,908,526	17,138,513	18,118,741	15,846,516
1,644,162	2,886,940	3,212,125	3,514,689	4,875,931	4,944,838	3,969,675	2,040,714
10,007,984	15,871,856	17,237,904	25,092,592	25,457,824	25,471,152	24,655,904	22,271,872
1,184,801	1,504,835	1,489,070	2,393,433	2,367,578	2,497,651	2,200,180	1,695,400
3,896,119	2,286,963	3,582,131	3,597,513	3,284,602	3,224,241	3,559,254	3,295,566
15,183,776	15,409,520	18,227,664	19,480,896	20,781,152	24,065,792	20,685,792	22,467,200
2,064,402	2,256,639	3,075,820	3,258,183	3,193,900	3,617,017	3,036,168	2,226,136
16,889,040	17,511,424	30,532,768	80,476,320	23,813,308	25,708,440	30,576,784	43,516,868
1,004,280	1,016,775	1,822,787	1,983,074	1,692,538	1,751,876	2,443,776	2,692,672
46,004,928	49,877,290	48,602,320	43,685,552	47,435,448	61,882,828	53,998,848	59,673,716
6,159,875	6,857,805	7,115,229	6,857,163	6,693,771	8,994,742	8,475,417	9,001,203
113,511,664	125,210,736	120,912,784	145,877,232	161,417,780	208,817,604	186,241,104	220,597,592
3,412,575	3,922,695	4,549,762	5,073,685	5,749,793	5,749,793	5,628,284	5,605,752
13,733,082	14,582,486	15,568,177	13,414,689	13,858,166	13,850,841	12,202,608	14,963,696
5,905,048	6,127,668	6,179,101	5,778,696	5,256,629	5,184,677	4,912,794	5,558,886
13,256	19,964	16,682	15,448	14,359	12,551	12,042	7,094
4,168,286	5,360,485	4,854,557	4,260,263	4,350,561	3,701,843	3,165,617	1,529,928
67,685	65,951	77,701	69,534	82,972	75,625	70,274	85,102
2,505,583	2,071,925	3,215,974	2,809,819	3,428,537	3,035,097	2,811,233	3,896,448
25,556	81,674	64,291	73,896	77,138	84,118	54,277	53,476
1,684,602	1,907,521	3,418,690	4,504,616	4,500,161	4,065,767	3,814,292	2,985,012
7,382	10,039	8,751	11,187	13,832	15,867	16,465	13,531
2,028,574	3,865,965	3,745,276	4,447,789	6,262,790	6,489,286	5,910,440	5,074,812
617,215	998,030	1,658,596	1,191,055	1,608,062	2,232,567	2,578,876	2,144,662
3,064,483	4,569,282	5,121,828	5,120,272	4,931,864	5,537,036	4,853,096	4,124,196
2,160,441	2,153,263	1,206,129	1,863,137	3,033,777	3,076,245	3,984,616	3,661,683
965,177	675,631	534,537	775,758	1,178,809	1,323,751	1,858,970	1,895,792
3,573,859	2,146,690	1,865,705	2,864,123	1,553,899	4,020,955	3,117,937	3,902,094
7,572,026	5,185,430	3,604,161	3,481,077	3,641,472	2,002,130	1,285,966	1,211,595
1,079,566	1,207,686	1,258,853	1,282,194	1,657,780	1,656,812	3,183,849	3,187,674
3,175,781	3,286,962	3,514,893	3,705,687	4,244,763	4,442,037	4,838,339	4,748,360
2,832,806	3,025,418	3,007,696	2,861,122	2,628,296	2,541,893	2,645,142	2,172,906
2,810,240	2,827,851	2,420,848	2,407,911	2,365,124	2,335,103	2,811,863	1,681,432
2,591,614	3,008,714	2,663,838	2,019,117	2,301,881	3,818,721	2,895,789	2,511,162
8,065,008	21,843,488	24,848,656	37,637,840	24,511,424	26,747,056	21,860,832	18,490,864
636,905	1,488,803	1,642,390	2,830,366	2,082,316	2,355,079	1,645,416	1,112,940
40,229,778	30,521,432	44,594,846	40,158,725	38,554,177	42,733,234	45,526,833	42,657,612
12,627,996	11,847,186	13,625,340	12,081,431	11,487,528	11,638,752	12,089,094	10,896,148
15,524,885	9,798,998	9,131,818	9,353,274	9,263,414	10,167,672	8,694,146	8,374,705
2,869,204	2,025,735	2,075,093	1,86,044	2,083,234	2,174,592	1,996,162	2,041,686
1,894,884	1,285,551	1,451,400	1,371,078	1,398,484	1,365,593	1,213,671	1,204,451
3,113,846	2,455,100	2,989,299	2,939,693	2,991,038	2,827,947	2,528,323	2,629,280
1,301,600	1,031,661	1,172,606	1,174,673	1,907,074	1,421,896	1,367,628	1,365,174
199,265,955	243,823,500	237,379,076	263,167,248	263,952,051	277,131,359	276,893,151	267,420,571
59,427,001	68,822,747	69,936,532	77,047,772	74,101,601	74,291,670	74,291,598	68,070,618
1,723,677	2,091,185	3,247,928	2,378,142	2,335,978	2,332,492	2,666,856	2,801,804
255,854,428	278,242,805	307,900,537	306,472,071	316,840,663	318,998,721	305,899,777	283,655,683
937,243,722	930,844,344	1,084,073,768	1,187,850,407	1,178,580,407	1,165,425,489	1,132,602,676	1,035,896,270
1,193,100,150	1,200,087,149	1,391,974,305	1,448,822,478	1,490,871,070	1,484,424,160	1,438,402,453	1,319,061,953

BRITISH NORTH AMERICA.

Value of imports, for consumption, from principal

Whence imported.	1873.	1874.	1875.	1876.	1877.
<i>Dominion of Canada.</i>					
Continent of America:	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United States.....	48,332,214	54,961,594	51,440,670	46,645,794	51,953,886
British West Indies.....	975,888	931,176	1,036,152	879,680	648,810
Spanish West Indies.....	1,157,652	1,856,912	1,130,436	639,090	570,564
South America.....	421,362	479,682	282,366	291,114	4,860
Newfoundland, &c.....	1,831,734	1,102,248	915,624	784,404	649,782
All other West Indies.....	68,526	48,600	55,404	117,612	86,936
<i>Total from America.....</i>	<i>52,787,376</i>	<i>58,680,212</i>	<i>54,860,652</i>	<i>49,357,674</i>	<i>53,964,838</i>
Continent of Europe:					
United Kingdom.....	69,379,416	63,964,774	61,101,378	41,242,437	40,066,812
Germany.....	1,113,912	989,084	757,654	488,490	375,192
France.....	2,048,976	2,331,842	1,965,884	1,863,810	1,423,344
Spain.....	184,056	463,644	383,000	441,280	281,894
Belgium.....	346,032	297,432	281,894	385,472	255,150
Holland.....	219,186	256,524	224,738	270,216	205,992
Switzerland.....	121,986	141,426	117,612	56,962	69,964
Italy.....	62,974	46,056	44,712	40,824	29,646
Portugal.....	75,816	101,574	67,068	72,414	46,170
<i>Total from Europe.....</i>	<i>73,842,354</i>	<i>68,475,456</i>	<i>64,937,940</i>	<i>44,842,745</i>	<i>42,757,784</i>
Continent of Asia:					
China and Japan.....	1,068,990	1,203,642	665,820	960,336	423,792
Continent of Africa.....	128,304	.....	378,594	294,032	98,668
Australasia.....	868,174	.....	493	49	.....
All other.....	273,326	.....	250,583	462,549	859,164
<i>Total for Dominion (entered for consumption).....</i>	<i>129,108,524</i>	<i>128,659,320</i>	<i>121,113,992</i>	<i>*95,917,383</i>	<i>97,504,236</i>
Entered for re-export†.....	502,899	1,256,937	3,494,911	.....	2,065,802
TOTAL IMPORTS FOR DOMINION.....	129,611,423	129,916,257	124,608,903	*94,375,504	100,569,538
<i>Newfoundland.</i>					
Continent of America:					
United States.....	1,726,273	1,965,884	1,605,958	2,190,402	1,941,570
Dominion of Canada.....	1,837,080	1,862,468	2,349,810	2,075,706	2,160,270
British West Indies.....	225,990	249,804	813,956	243,972	285,762
All other.....	287,226	253,206	296,460	140,368	172,533
<i>Total from America.....</i>	<i>4,076,569</i>	<i>4,490,862</i>	<i>4,566,184</i>	<i>4,650,448</i>	<i>4,560,141</i>
Continent of Europe:					
United Kingdom.....	2,499,498	2,694,870	2,602,044	2,491,236	2,707,020
All other.....	275,120	820,891	281,880	218,214	189,516
<i>Total from Europe.....</i>	<i>2,874,618</i>	<i>3,015,761</i>	<i>2,883,924</i>	<i>2,709,450</i>	<i>2,895,536</i>
Not specified.....	.....	.....	.....	.....	.....
<i>Total from Newfoundland.....</i>	<i>6,851,186</i>	<i>7,446,623</i>	<i>7,450,108</i>	<i>7,295,678</i>	<i>7,455,677</i>
TOTAL FOR BRITISH NORTH AMERICA.....	186,462,609	187,262,880	182,059,011	101,671,182	108,025,215

*As in the official returns.

† Nearly all American products.

BRITISH NORTH AMERICA.

countries, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 49, 289, 576 858, 680 423, 384 15, 552 680, 886 58, 680	<i>Dollars.</i> 44, 265, 778 658, 044 563, 151 4, 374 647, 352 26, 730	<i>Dollars.</i> 29, 713, 524 1, 223, 748 1, 733, 076 287, 226 589, 032 25, 272	<i>Dollars.</i> 37, 162, 962 1, 912, 410 1, 923, 588 645, 408 660, 474 27, 216	<i>Dollars.</i> 43, 692, 572 1, 872, 072 2, 162, 700 1, 390, 932 499, 608 38, 680	<i>Dollars.</i> 56, 782, 721 2, 508, 733 1, 875, 474 1, 167, 372 775, 656 34, 922	<i>Dollars.</i> 50, 423, 472 1, 961, 382 1, 604, 710 1, 476, 954 779, 544 33, 048	<i>Dollars.</i> 47, 066, 596 1, 280, 124 1, 690, 308 1, 339, 416 850, 406 28, 003
51, 255, 858	46, 205, 420	33, 571, 878	42, 332, 058	54, 856, 764	63, 094, 950	56, 281, 716	51, 774, 859
37, 899, 252 404, 351 1, 402, 110 280, 908 258, 038 215, 784 61, 722 53, 946 42, 232	31, 390, 534 446, 694 1, 551, 813 347, 976 181, 278 203, 148 93, 742 33, 874 25, 758	34, 891, 434 455, 383 1, 129, 950 230, 598 151, 146 173, 502 95, 256 485, 102 36, 450	44, 128, 400 945, 756 1, 651, 914 414, 038 417, 960 227, 934 99, 630 89, 910 57, 834	51, 229, 746 1, 496, 838 2, 123, 834 468, 018 509, 828 251, 262 271, 674 94, 284 52, 488	52, 703, 298 1, 881, 784 2, 345, 436 592, 434 400, 390 300, 834 340, 200 103, 948 64, 152	43, 358, 490 1, 973, 180 1, 767, 582 503, 982 458, 298 327, 844 242, 028 75, 330 68, 040	41, 349, 852 2, 118, 474 1, 932, 823 348, 948 477, 283 808, 124 217, 243 107, 192 60, 284
40, 619, 394	34, 266, 256	37, 687, 820	48, 033, 376	56, 498, 472	58, 684, 426	48, 774, 754	46, 920, 870
388, 814	454, 410	904, 982	1, 428, 840	1, 548, 396	1, 066, 008	1, 907, 064	2, 577, 744
45, 684	107, 892	188, 510	140, 454	207, 522	113, 238	187, 030	165, 04
-----	1, 871	1, 905	146	2, 182	1, 234	2, 090	2, 871
30, 352	309, 920	424, 569	821, 876	943, 700	1, 116, 377	879, 800	1, 138, 872
92, 339, 956	81, 345, 878	72, 679, 613	92, 756, 750	114, 057, 096	124, 676, 233	108, 032, 454	102, 560, 318
1, 903, 354	1, 643, 103	14, 891, 254	13, 890, 994	6, 855, 205	9, 230, 963	8, 205, 138	6, 223, 021
94, 243, 310	82, 988, 981	87, 570, 867	106, 647, 756	120, 912, 241	133, 907, 196	116, 237, 592	108, 792, 849
1, 970, 730 2, 180, 193 171, 076 92, 538	2, 167, 074 2, 284, 441 333, 896 188, 794	2, 093, 632 1, 807, 434 180, 792 84, 078	1, 955, 664 1, 960, 936 262, 926 90, 882	2, 242, 404 2, 153, 466 372, 276 80, 331	2, 875, 176 2, 369, 250 396, 090 104, 004	2, 172, 906 2, 176, 794 862, 070 94, 770	1, 979, 064 2, 082, 996 297, 918 47, 628
4, 414, 535	4, 923, 705	4, 167, 936	4, 290, 408	4, 848, 477	5, 744, 520	4, 806, 540	4, 408, 506
2, 364, 601 175, 446	2, 227, 838 200, 718	2, 652, 588 232, 794	2, 444, 580 204, 120	3, 457, 404 148, 710	3, 295, 566 152, 118	3, 122, 550 190, 998	2, 212, 758 143, 856
2, 540, 047	2, 428, 056	2, 685, 382	2, 648, 700	3, 606, 120	3, 447, 684	3, 313, 548	2, 356, 614
-----	-----	-----	-----	-----	52, 402	56, 648	17, 113
6, 954, 582	7, 331, 761	7, 053, 318	6, 939, 108	8, 454, 597	9, 245, 606	8, 176, 736	6, 782, 232
101, 197, 892	90, 340, 742	94, 624, 185	113, 586, 864	129, 366, 888	143, 153, 802	124, 414, 328	115, 574, 581

†The details of the imports for the several countries in 1876 show an excess over the total given of \$64,220. The error occurs in the official returns.

BRITISH NORTH AMERICA—Continued.

Total value of exports, including bullion and specie

Whither exported.	1873.	1874.	1875.	1876.	1877.
DOMINION OF CANADA.					
Continent of America :	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United States	42,598,886	36,607,574	30,286,062	32,329,108	26,067,228
Newfoundland, &c.	2,835,324	1,588,784	1,925,532	1,875,960	2,138,400
British West Indies	1,994,058	2,022,046	2,312,388	2,175,836	2,221,902
South America	1,301,508	1,228,122	795,582	696,929	659,968
Spanish West Indies	1,644,624	1,270,890	1,055,106	1,160,568	1,300,536
French West Indies	808,750	385,398	876,164	296,460	162,324
All other West Indies	96,228	147,744	251,262	68,938	151,632
Total to America	50,773,878	48,340,508	37,002,096	38,623,290	32,732,100
Continent of Europe :					
United Kingdom	39,237,976	45,566,388	40,533,872	41,332,726	42,067,114
France	82,076	270,702	215,298	560,844	323,190
Belgium	17,982	243,486	60,264	14,094	67,554
Italy	179,334	192,456	172,533	144,342	201,690
Portugal	193,428	195,858	182,736	129,276	136,848
Germany	77,274	66,096	91,854	127,338	34,992
Spain	25,272	973	7,290	9,525	63,696
Holland	13,122	44,226	29,063	31,104	95,256
Total to Europe	39,766,464	46,580,184	41,292,410	42,249,243	43,000,308
Continent of Asia :					
China and Japan	47,142	39,852	37,422	23,328	37,422
Continent of Africa :					
South Africa	4,860	340	31,164	24,300	22,328
Australasia	42,280	100,602	194,680	92,312	190,998
Not otherwise designated	277,911	408,541	514,338	965,032	829,670
Total exports from Dominion	90,912,535	90,468,827	79,062,006	81,978,514	76,823,826
NEWFOUNDLAND.					
Continent of America :					
Brazil	1,187,784	1,391,418	1,341,846	1,272,348	1,494,936
Dominion of Canada	360,612	445,176	194,400	260,010	196,830
United States	216,270	320,274	199,746	139,968	222,308
British West Indies	392,086	393,034	361,664	319,785	277,020
Foreign West Indies	143,370	162,810	191,484	51,030	70,470
St. Pierre	6,318	7,290	2,430	5,346	14,560
Total to America	2,206,440	2,725,002	2,291,490	2,048,487	2,286,144
Continent of Europe :					
United Kingdom	2,215,674	1,849,230	2,156,842	2,306,096	2,970,432
Portugal	877,716	1,085,724	949,644	870,428	731,436
Spain	1,057,050	1,154,250	681,856	896,184	556,956
Italy	158,430	895,118	253,692	865,958	103,518
Germany	53,460	.....	58,320	55,404	12,636
Total to Europe	4,362,330	4,484,322	4,100,353	4,498,070	4,374,972
Not otherwise designated	49,905	218,408	120,557	102,549	266,036
Total from Newfoundland	6,618,675	7,427,732	6,512,400	6,644,106	6,927,152
TOTAL FROM BRITISH NORTH AMERICA	97,531,210	97,896,560	85,574,400	88,622,620	83,750,978

STATISTICAL ABSTRACT.

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BRITISH NORTH AMERICA—Continued.

and foreign merchandise, to the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 25,541,244 2,120,904 1,974,618 662,418 1,103,220 248,804 129,276	<i>Dollars.</i> 27,505,170 1,661,925 1,979,964 750,870 1,252,908 226,903 89,424	<i>Dollars.</i> 33,766,308 1,528,956 1,929,906 799,956 1,336,014 226,962 95,742	<i>Dollars.</i> 37,327,230 1,542,564 1,810,350 741,150 1,182,438 112,752 81,648	<i>Dollars.</i> 48,539,736 2,005,236 1,710,234 953,046 1,091,556 156,978 73,672	<i>Dollars.</i> 42,189,562 2,214,702 1,808,892 1,075,032 1,043,812 320,274 90,832	<i>Dollars.</i> 38,787,174 1,917,756 1,709,748 1,276,236 1,043,442 307,152 54,432	<i>Dollars.</i> 39,698,424 1,668,438 1,531,872 1,466,262 601,900 141,426 50,048
31,780,484	33,467,23	39,683,844	42,798,132	54,530,658	48,643,156	45,095,940	45,358,380
46,485,414 373,734 50,544 153,576 105,462 123,930 48,405 54,432	36,749,376 723,654 40,824 150,174 187,530 113,724 51,030 10,692	46,419,318 822,798 697,410 165,726 168,156 83,106 61,722 104,004	54,423,252 671,166 261,468 147,744 109,836 86,022 47,142 218,214	45,840,492 835,920 144,342 165,726 151,632 155,034 109,850 369,846	47,734,434 625,482 198,288 220,644 182,250 135,594 69,984 27,702	43,676,334 390,258 286,740 246,888 172,044 195,372 148,856 15,552	41,820,030 303,264 72,414 147,258 166,696 263,898 132,678 24,057
47,395,497	37,977,004	48,522,240	55,964,844	47,772,342	49,194,378	45,127,044	42,980,297
103,518	57,348	37,908	19,926	107,892	106,677	60,750	29,874
47,142 388,314 600,258	46,170 324,163 512,986	83,106 157,950 525,303	82,620 150,660 503,272	96,714 364,986 527,590	80,676 399,006 887,840	47,628 5,152 448,894	35,760 421,634 340,666
80,315,213	72,384,893	89,010,351	99,519,454	103,400,582	99,311,733	91,281,278	89,116,611
1,338,900 271,674 178,848 213,840 38,394 17,496	1,401,138 320,760 371,188 233,280 40,824 9,234	1,453,140 408,240 294,030 260,496 33,394 22,842	2,149,092 427,680 320,274 345,060 48,144 11,664	1,588,734 409,212 312,498 294,516 36,450 4,714	1,195,074 401,922 596,808 294,516 46,656 9,720	1,595,052 336,798 294,516 294,804 38,894 12,150	920,970 234,252 199,200 225,504 3,888 11,294
2,057,153	2,276,424	2,477,142	3,301,914	2,646,124	2,544,696	2,571,714	1,595,168
2,307,182 781,076 386,370 156,492 -----	2,101,950 722,682 591,948 133,164 50,058	1,800,844 657,558 389,286 121,500 456	2,314,818 1,197,990 637,146 209,932 49,086	1,719,468 1,414,746 798,180 347,490 17,010	1,679,180 1,484,918 633,184 226,476 153,090	1,567,850 1,496,748 615,160 151,632 15,552	1,242,216 1,250,964 299,376 128,804 -----
2,611,120	2,509,802	2,969,962	4,408,962	4,296,894	4,196,798	3,744,442	2,920,880
32,994	116,660	259,340	205,694	145,729	403,476	331,053	269,663
5,701,266	5,992,886	5,706,126	7,916,600	7,088,747	7,144,970	6,649,209	4,785,691
86,016,479	78,377,779	94,716,477	107,436,064	110,489,329	106,456,708	97,980,487	93,902,302

BRITISH NORTH AMERICA—Continued.

Quantities and value of merchandise

Articles.	1873.	1874.	1875.	1876.	1877.
DOMINION OF CANADA.					
Books	dollars. 950, 130	968, 168	1, 055, 106	863, 222	883, 063
Coal and coke	tons. 2, 091, 838	3, 838, 008	3, 114, 774	3, 361, 673	3, 016, 908
Cotton	pounds. 1, 982, 848	3, 514, 287	3, 778, 109	5, 527, 428	5, 578, 222
Cotton manufactures	dollars. 10, 292, 022	11, 452, 390	10, 842, 080	7, 466, 904	7, 892, 154
Earthen and glass ware	dollars. 642, 978	556, 470	577, 368	422, 792	419, 118
Wheat	bushels. 5, 804, 630	9, 910, 551	5, 105, 158	5, 858, 136	4, 589, 051
Other kinds of grain	dollars. 6, 980, 904	8, 495, 280	6, 740, 820	6, 186, 368	4, 907, 628
Flour	bushels. 5, 975, 259	3, 974, 369	4, 840, 258	10, 392, 897	10, 392, 897
Hats, caps, and bonnets	dollars. 4, 993, 164	3, 018, 546	2, 584, 546	2, 679, 318	5, 185, 694
Hides and pelts	barrels. 2, 585, 108	520, 419	624, 784	520, 804	853, 646
Hosiery	dollars. 2, 622, 942	3, 121, 092	2, 435, 832	3, 940, 488	928, 802
Hats, caps, and bonnets	dollars. 801, 414	937, 980	1, 005, 048	849, 528	928, 802
Hides and pelts	dollars. 1, 428, 344	1, 500, 788	1, 850, 200	1, 042, 056	1, 185, 914
Hosiery	dollars. 437, 400	471, 806	595, 350	465, 588	468, 018
Iron, and manufactures of:					
Hardware, cutlery, steel	dollars. 5, 292, 170		3, 685, 824	3, 541, 968	
Tinned plates	dollars. 871, 884		796, 778	728, 514	
Rolled and boiler plates	dollars. 127, 818		59, 778	110, 808	
Nail and spike rods	dollars. 68, 526		71, 442	88, 888	
Wire of all kinds	dollars. 174, 960		135, 108	168, 688	
Bar, rod, hoop and sheet	dollars. 2, 594, 522		1, 447, 794	1, 481, 528	
Galvanized iron	dollars. 158, 922		120, 042	162, 324	
Fig, scrap, bars, &c.	dollars. 1, 471, 142		719, 766	850, 500	
Railroad bars, &c.	dollars. 7, 368, 572	4, 880, 804	5, 855, 720	3, 944, 320	1, 991, 942
Total iron	dollars. 19, 835, 000	15, 085, 314	16, 015, 664	10, 922, 850	9, 128, 020
Leather:					
Boots and shoes	dollars. 208, 008	237, 654	248, 846	298, 254	454, 410
Other kinds	dollars. 1, 285, 470	1, 305, 396	1, 437, 588	858, 656	915, 138
Linen	dollars. 976, 374	1, 180, 786	1, 308, 798	819, 396	890, 146
Machinery	dollars. 3, 134, 313	3, 205, 170	1, 508, 058	921, 426	997, 272
Meats of all kind	pounds. 23, 534, 863	21, 081, 594	14, 998, 975	25, 861, 009	
Salt	dollars. 1, 272, 348	1, 715, 580	1, 964, 898	1, 480, 794	2, 228, 936
Ships' materials	dollars. 291, 000	2, 474, 628	2, 566, 094	3, 055, 943	3, 102, 107
Silks, satin, and velvets	dollars. 291, 000	468, 990	323, 676	856, 286	352, 250
Spirits, brandy	dollars. 1, 349, 136	1, 641, 220	1, 442, 448	962, 898	844, 668
Stationery	dollars. 2, 308, 500	2, 180, 682	2, 301, 646	1, 321, 920	1, 138, 184
Sugar	gallons. 703, 465	802, 695	598, 052	359, 726	300, 887
Molasses	dollars. 885, 008	889, 866	864, 594	541, 404	581, 742
Tea	dollars. 540, 432	523, 908	600, 696	464, 542	474, 336
Tobacco:					
Manufactured	pounds. 92, 648, 213	105, 755, 791	104, 819, 734	97, 104, 296	
Unmanufactured	dollars. 4, 410, 450	5, 045, 480	4, 648, 104	5, 638, 440	
Wine	pounds. 54, 892, 050	50, 280, 276	53, 754, 470	43, 863, 630	
Woolen manufactures	dollars. 736, 290	756, 818	1, 239, 786	984, 768	869, 454
All other articles	pounds. 10, 921, 559	13, 063, 993	12, 303, 342	12, 474, 888	
Total merchandise for Dominion	dollars. 5, 615, 244	3, 684, 852	4, 127, 212	3, 791, 172	3, 479, 274
NEWFOUNDLAND.					
Breadstuffs and provisions:					
Flour	barrels. 242, 387	280, 063	236, 073	293, 690	249, 058
All others	dollars. 1, 781, 412	1, 741, 486	1, 434, 186	1, 635, 876	1, 387, 044
Cottons, woollens, silks, &c.	dollars. 862, 650	1, 088, 154	1, 029, 848	1, 008, 020	1, 200, 906
Leather, and manufactures of	dollars. 1, 170, 774	1, 197, 750	1, 278, 666	1, 182, 438	1, 350, 108
Sugar and molasses	dollars. 358, 182	405, 324	385, 884	380, 052	848, 462
Tee	dollars. 513, 217	462, 186	560, 858	465, 588	428, 632
All other articles	dollars. 121, 986	136, 566	133, 650	157, 464	123, 650
Total from Newfoundland	dollars. 2, 092, 966	2, 525, 157	2, 628, 016	2, 468, 637	2, 616, 355
TOTAL FOR BRITISH NORTH AMERICA	dollars. 6, 851, 196	7, 446, 623	7, 450, 108	7, 296, 075	7, 456, 677
TOTAL FOR BRITISH NORTH AMERICA	dollars. 136, 462, 609	137, 262, 880	132, 050, 011	101, 671, 579	108, 025, 313

BRITISH NORTH AMERICA—Continued.

imported (years ended June 30).

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
905,418 960,091 3,100,194 7,242,413 784,404 7,350,096 491,346 6,625,411 6,561,618 10,009,088 4,076,546 547,873 2,563,444 1,037,610 1,222,290 467,646	805,788 1,063,252 3,218,192 9,720,718 996,800 6,616,890 380,538 4,768,733 4,525,632 9,814,984 3,904,038 543,671 2,046,646 951,588 1,217,916 461,214	647,352 1,204,667 3,175,624 13,237,168 1,614,862 7,400,808 380,032 7,521,594 8,179,896 6,598,090 3,117,690 287,091 1,047,816 980,748 1,738,134 589,460	678,456 1,830,871 4,292,352 16,018,721 1,727,244 9,898,754 419,904 7,839,689 7,898,958 7,567,809 3,709,152 415,920 1,633,932 1,224,234 2,240,430 739,206	787,820 1,552,709 5,182,704 19,842,059 1,961,010 10,425,072 671,166 2,931,220 8,400,542 4,018,446 2,350,528 335,400 1,553,742 1,277,208 2,244,348 1,033,236	852,650 1,908,821 6,514,844 28,777,071 3,035,070 9,809,816 693,816 4,961,374 5,986,548 2,730,300 1,892,942 433,417 2,001,834 1,881,212 2,011,068 1,071,144	890,852 2,323,112 8,239,644 20,769,940 2,232,198 7,232,160 541,404 3,604,442 3,870,990 6,314,938 3,864,186 693,133 3,025,836 1,096,416 8,118,148 809,676	804,816 2,227,084 7,353,066 23,727,575 2,489,778 6,241,212 485,025 3,128,143 3,098,230 3,873,140 2,221,992 690,296 2,650,158 1,072,116 1,780,536 780,516
3,579,242 549,066 92,531 48,114 131,706 1,252,422 124,136 527,440 1,411,550	3,414,150 534,114 152,118 28,065 120,528 1,115,370 113,724 872,762 1,062,882	3,004,452 708,588 162,824 25,738 265,356 1,378,296	4,021,650 991,926 178,848 19,197 365,958 1,304,910	3,980,258 955,476 232,794 26,272 467,046 1,820,556 1,263,114 2,812,968	5,246,370 979,290 268,552 29,160 491,892 2,041,686 1,444,878 4,214,492	5,621,562 814,536 369,846 21,870 526,328 1,585,538 836,163 2,841,156	5,356,306 953,532 248,804 2,766 439,244 1,203,336 608,472 2,444,094
7,728,807	6,914,613	9,088,142	10,916,775	11,507,484	14,706,320	12,627,009	11,256,654
249,318 978,804 1,014,768 798,984 24,034,970 1,592,136 2,738,605 327,078 684,744 1,431,756 285,584 520,020 485,028 110,984,956 6,124,460 53,068,706 1,192,155 12,085,961 2,797,902	202,176 1,054,134 860,220 937,960 17,743,896 1,025,946 2,906,633 407,268 496,692 1,380,240 276,991 490,800 329,548 115,324,968 5,479,164 42,007,653 758,160 12,068,211 2,783,322	109,350 1,110,024 963,252 1,171,746 20,806,024 1,711,206 3,557,304 409,212 585,424 1,646,565 276,401 509,814 69,984 112,375,248 3,988,322 32,899,908 590,004 13,409,217 3,213,918	106,920 1,409,886 1,226,178 1,697,598 82,080,776 2,256,498 3,910,732 501,066 635,202 1,972,674 219,015 441,774 102,060 132,789,814 5,073,840 51,401,632 1,144,530 19,462,336 3,994,920	106,212 1,769,040 1,363,716 8,811,698 28,997,579 2,428,056 2,857,254 332,424 638,111 2,389,176 282,642 532,656 120,528 134,999,510 4,937,780 42,548,820 1,056,302 17,011,391 3,498,714	220,644 1,845,342 1,213,456 4,822,578 2,818,706 4,313,996 428,652 707,616 2,136,456 349,601 656,585 105,462 154,200,540 5,209,920 57,172,788 1,434,186 17,436,765 8,506,009	199,260 1,245,132 1,104,678 2,417,364 1,936,224 3,995,898 366,444 528,282 2,192,832 234,562 165,240 105,462 178,199,349 5,649,264 46,369,968 967,626 15,718,442 3,107,484	191,970 1,339,902 1,158,138 1,896,792 1,770,496 3,032,611 267,712 405,324 2,268,574 374,706 214,018,916 5,289,064 49,845,256 763,992 18,255,368 3,533,706
196,838 67,068 8,881,463 712,476 420,046 406,296 8,618,232 28,715,750	375,583 367,416 9,196,653 753,786 349,732 355,266 7,079,502 24,528,463	255,755 223,074 9,430,025 827,172 433,806 408,726 6,243,156 24,119,281	816,274 309,582 10,460,588 1,013,870 474,378 460,242 8,485,560 29,796,331	358,444 416,988 12,286,391 1,350,594 696,772 724,626 9,718,056 41,538,038	379,867 413,586 9,586,151 1,106,622 808,456 805,302 9,618,156 35,835,112	420,297 416,502 14,325,611 1,742,796 452,793 466,972 7,838,208 36,837,619	415,565 414,072 11,497,294 1,454,112 421,719 456,936 8,571,096 35,905,261
93,434,394 810,016	81,329,408 1,650,573	80,665,684 1,905,183	105,510,158 1,137,596	119,389,700 1,522,641	132,615,728 1,291,468	114,032,952 2,204,640	105,842,154 2,950,195
94,245,310	82,988,981	87,570,867	106,647,756	120,912,241	133,907,196	116,237,523	108,792,349
324,911 1,770,330 734,346 1,045,879 277,020 316,388 151,632 2,682,921	303,483 1,843,398 787,320 1,028,516 313,470 516,132 149,912 2,718,013	296,484 1,506,114 770,310 1,028,608 279,450 365,628 201,204 2,701,966	296,858 1,512,918 872,870 1,012,824 328,536 438,858 218,700 2,565,253	361,295 1,249,020 805,788 1,410,394 296,460 536,572 216,756 4,339,607	365,940 1,652,632 1,228,122 1,346,706 283,824 625,968 224,644 3,687,710	326,961 3,656,316 701,784 1,350,108 280,420 462,112 193,919 3,513,077	303,694 1,587,218 937,490 985,550 208,960 370,566 201,690 2,581,734
6,964,577	7,351,761	7,053,180	6,940,459	8,454,597	9,245,606	8,176,786	6,782,232
101,199,887	90,340,742	94,624,047	113,697,215	129,366,838	143,152,802	124,414,328	115,574,581

BRITISH NORTH AMERICA—Continued.

Quantities and value of merchandise

Articles.	1873.	1874.	1875.	1876.	1877.
DOMINION OF CANADA.					
Coal	{ tons 404,757	418,357	288,176	284,279	254,933
	{ dollars 964,224	1,360,314	949,644	1,015,254	884,054
Copper ore	{ tons 2,588	3,148	2,390	2,230	1,313
	{ dollars 168,642	136,566	105,462	356,238	316,886
Fish:					
Dried	{ pounds 76,987,536	88,332,832	85,209,120	73,697,008	84,918,064
	{ dollars 2,840,184	2,730,834	2,786,238	3,091,446	3,363,606
Pickled	{ pounds 10,568,896	2,543,520	2,248,624	3,068,912	3,776,520
	{ barrels 252,666	222,964	366,747	225,749	233,925
	{ dollars 1,342,818	1,591,650	1,681,560	1,489,104	1,454,598
Lobster, preserved	{ pounds 1,584,793	4,380,180	4,533,167	4,575,285	6,108,728
	{ dollars 281,394	590,226	690,210	579,812	677,970
Total fish	dollars 4,464,396	4,852,710	5,098,008	5,159,862	5,490,174
Shells, pot and pearl	{ barrels 16,285	15,478	13,846	.....	16,460
	{ dollars 664,848	545,292	553,666	429,188	477,738
Timber:					
Elm	{ tons 22,401	27,698	26,629	20,940	26,919
	{ dollars 270,702	394,978	394,146	334,252	328,536
Oak	{ tons 83,174	90,225	81,959	66,952	97,758
	{ dollars 1,258,254	1,614,006	1,652,886	1,898,222	1,662,606
White pine	{ tons 380,554	256,371	349,173	289,441	413,787
	{ dollars 4,023,108	2,774,574	3,688,624	2,980,152	4,308,530
Red pine	{ tons 40,959	20,534	44,056	37,040	56,540
	{ dollars 406,296	251,262	488,372	303,750	413,100
Staves	{ mille 11,693	7,939	6,561	5,001	7,352
	{ dollars 799,956	737,864	649,782	479,196	648,810
Deals	{ standard hds 264,861	840,333	219,921	237,820	275,333
	{ dollars 6,451,650	8,273,178	8,835,490	7,221,176	8,935,596
Planks and boards	{ M feet 901,734	911,794	579,686	427,143	459,738
	{ dollars 8,833,536	11,499,246	9,396,546	4,842,990	4,755,024
Total timber	dollars 22,043,502	25,550,108	24,895,836	17,459,738	21,047,202
Animals:					
Horses	{ number 8,782	5,399	4,382	4,300	8,341
	{ dollars 933,606	577,854	466,560	443,578	895,302
Horned cattle	{ number 25,637	39,623	33,968	25,898	34,127
	{ dollars 663,876	963,252	833,976	653,670	857,304
Sheep	{ number 315,832	252,081	242,438	141,187	209,890
	{ dollars 969,570	711,504	645,408	512,702	590,490
Total animals	dollars 2,567,052	2,252,610	1,945,944	1,615,950	2,253,096
Produce of animals:					
Bacon and hams	{ pounds 39,982,096	20,237,728	9,963,528	10,236,976	17,813,712
	{ dollars 2,852,240	1,607,202	838,892	937,908	1,456,410
Butter	{ pounds 15,208,592	11,333,088	9,268,324	12,392,352	15,479,52
	{ dollars 2,848,032	2,657,984	2,337,174	2,611,764	3,265,43
Cheese	{ pounds 19,485,424	24,050,962	32,342,016	37,325,232	37,710,880
	{ dollars 2,308,986	3,552,680	3,934,656	4,110,588	3,946,806
Eggs	{ dozen 3,573,781	4,407,534	3,521,068	3,880,813	5,025,958
	{ dollars 516,132	624,624	439,830	514,674	541,404
Hides and pelts	{ dollars 523,422	395,604	534,600	541,890	518,076
Lard	{ pounds 4,765,162	5,098,240	946,064	11,585,008	10,529,344
	{ dollars 206,550	221,130	40,824	459,270	456,840
Pork	{ pounds 5,068,144	11,232,592	3,040,800	4,995,424	4,625,712
	{ dollars 271,188	318,816	250,776	364,500	333,326
Wool	{ pounds 3,126,172	2,764,796	2,647,498	2,907,229	2,476,484
	{ dollars 1,469,178	996,300	931,176	945,270	707,616
Furs	{ dollars 1,037,964	1,676,700	1,369,062	1,905,112	1,352,538
Total produce of animals ..dollars...	11,534,592	12,050,370	10,674,990	12,410,974	12,578,520

BRITISH NORTH AMERICA—Continued.

exported (years ended June 30).

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
345, 282	820, 929	356, 221	433, 858	444, 142	468, 490	504, 537	508, 237
1, 243, 188	965, 196	1, 063, 565	1, 083, 896	1, 173, 204	1, 210, 626	1, 356, 426	1, 646, 082
654	88	5, 883	19, 802	44, 745	4, 402	1, 677	1, 383
121, 014	19, 926	152, 604	152, 118	140, 940	152, 604	213, 840	246, 016
91, 278, 006	94, 151, 232	111, 649, 440	114, 537, 616	109, 086, 896	90, 188, 368	95, 267, 964	84, 943, 520
3, 308, 688	3, 289, 734	3, 714, 012	3, 845, 624	3, 595, 428	3, 890, 480	3, 734, 424	3, 049, 164
3, 329, 312	4, 991, 953	3, 033, 408	3, 041, 472	8, 718, 080	13, 650, 224	.....	3, 763, 544
258, 743	283, 640	264, 953	268, 592	195, 250	214, 454	252, 053	289, 273
2, 030, 904	2, 074, 248	1, 466, 746	1, 528, 470	1, 921, 644	2, 471, 310	1, 635, 390	1, 478, 412
8, 427, 103	10, 960, 374	9, 211, 527	13, 869, 753	14, 809, 162	15, 100, 980	10, 822, 987	14, 584, 920
978, 818	1, 167, 372	972, 000	1, 872, 464	1, 449, 738	1, 497, 866	1, 290, 330	1, 654, 942
6, 318, 000	6, 581, 354	6, 151, 758	6, 246, 558	6, 968, 810	7, 859, 106	6, 660, 144	6, 178, 518
19, 579	11, 060	11, 980	10, 149	11, 109	7, 801	7, 495	6, 001
800, 348	248, 346	806, 124	294, 030	832, 910	277, 188	224, 016	150, 978
24, 405	8, 648	14, 578	28, 905	17, 682	23, 152	16, 330	20, 196
82, 106	99, 144	158, 436	340, 538	211, 896	284, 796	215, 784	308, 610
72, 363	28, 647	48, 806	67, 161	41, 395	52, 448	51, 704	80, 677
1, 159, 596	424, 728	604, 584	1, 223, 748	832, 518	1, 110, 996	1, 017, 684	640, 548
393, 861	126, 161	148, 961	334, 163	200, 000	224, 192	258, 950	192, 494
2, 892, 672	1, 117, 800	1, 030, 066	3, 568, 698	2, 295, 864	3, 055, 968	3, 252, 312	2, 087, 798
37, 453	20, 662	19, 911	37, 445	21, 981	26, 116	27, 361	15, 235
271, 674	144, 342	138, 510	325, 134	194, 000	229, 392	213, 354	103, 518
7, 624	5, 314	11, 533	32, 262	40, 094	40, 094	56, 731	68, 849
452, 952	180, 792	218, 700	247, 860	382, 070	487, 450	587, 516	424, 764
269, 460	214, 814	236, 417	278, 017	288, 959	289, 698	815, 851	243, 351
8, 229, 458	5, 476, 734	6, 341, 328	9, 382, 230	8, 585, 190	9, 476, 028	9, 380, 286	7, 334, 226
411, 596	457, 430	766, 122	682, 514	725, 914	665, 937	700, 813	683, 923
4, 507, 650	4, 284, 090	6, 176, 574	7, 467, 390	8, 638, 536	8, 455, 544	8, 767, 440	8, 330, 040
17, 597, 088	11, 727, 680	14, 686, 198	22, 595, 598	21, 120, 374	23, 102, 974	23, 384, 576	19, 179, 504
14, 207	16, 635	21, 472	22, 008	21, 006	13, 500	12, 872	12, 310
1, 294, 218	1, 395, 306	1, 916, 784	2, 125, 764	2, 338, 090	1, 718, 983	1, 779, 732	1, 638, 206
30, 456	49, 287	54, 948	62, 512	62, 337	67, 660	90, 664	144, 411
1, 276, 666	2, 323, 080	2, 799, 360	3, 533, 220	3, 326, 184	4, 045, 464	5, 904, 900	7, 569, 450
242, 989	368, 393	399, 393	354, 258	311, 669	308, 662	304, 474	335, 207
608, 102	1, 002, 182	1, 444, 878	1, 392, 390	1, 244, 160	1, 409, 896	2, 544, 022	1, 263, 114
3, 180, 966	4, 720, 518	6, 161, 023	7, 051, 374	6, 959, 084	7, 174, 332	10, 228, 654	10, 470, 770
7, 686, 000	5, 717, 284	14, 804, 976	14, 303, 680	10, 903, 424	4, 256, 112	9, 455, 152	9, 132, 256
645, 408	371, 304	900, 558	1, 123, 632	1, 203, 820	505, 926	822, 798	716, 864
13, 504, 064	14, 586, 144	18, 787, 680	17, 820, 208	16, 340, 752	8, 162, 672	9, 490, 768	9, 122, 736
2, 505, 830	2, 165, 180	3, 158, 028	3, 705, 750	3, 012, 228	1, 735, 992	1, 526, 526	1, 575, 126
39, 371, 136	49, 616, 896	43, 441, 104	54, 713, 008	53, 325, 312	63, 343, 168	84, 985, 760	93, 600, 376
4, 173, 282	4, 083, 816	4, 145, 994	6, 167, 526	6, 054, 102	7, 112, 611	7, 812, 936	8, 889, 912
5, 268, 170	5, 440, 825	6, 452, 580	9, 090, 135	10, 499, 982	13, 451, 410	11, 490, 855	11, 512, 703
655, 128	581, 256	749, 895	1, 074, 060	1, 664, 064	2, 284, 686	1, 967, 608	1, 828, 832
404, 838	420, 876	768, 366	451, 960	391, 716	501, 066	470, 934	622, 526
714, 672	873, 712	3, 488, 800	4, 045, 552	1, 965, 876	420, 784	533, 868	93, 072
31, 104	37, 908	151, 632	175, 446	85, 050	17, 496	23, 828	6, 804
2, 700, 586	1, 475, 488	2, 157, 792	3, 178, 320	2, 656, 752	1, 762, 208	2, 612, 320	1, 802, 080
146, 286	70, 956	111, 294	182, 250	194, 886	144, 828	150, 174	101, 574
2, 445, 893	3, 013, 587	3, 705, 714	1, 482, 927	1, 222, 395	1, 375, 572	1, 539, 422	985, 925
718, 794	685, 746	961, 308	433, 512	274, 004	263, 824	315, 900	195, 858
1, 357, 884	1, 206, 252	1, 050, 732	2, 011, 068	1, 312, 200	1, 110, 024	1, 027, 034	1, 638, 306
10, 638, 054	9, 634, 744	11, 996, 907	15, 325, 524	14, 192, 072	13, 696, 453	14, 207, 238	15, 575, 302

BRITISH NORTH AMERICA—Continued.

Quantities and value of merchandise

Articles.	1873.	1874.	1875.	1876.	1877.
DOMINION OF CANADA—continued.					
Agricultural products:					
Barley and rye.....	{ bushels.. 4,846,923	3,748,275	5,419,054	10,168,176	6,682,245
	{ dollars.. 2,993,274	4,130,028	5,430,078	7,522,308	4,846,392
Indian corn.....	{ bushels.. 6,949,595	2,680,568	2,080,090	2,017,040	4,083,174
	{ dollars.. 4,038,174	1,800,144	1,609,146	1,465,776	2,615,652
Oats.....	{ bushels.. 629,467	998,100	2,989,139	2,644,233	3,906,156
	{ dollars.. 219,672	461,700	1,464,804	1,153,278	1,678,644
Peas.....	{ bushels.. 1,128,027	1,717,112	2,839,781	2,399,608	1,753,439
	{ dollars.. 939,438	1,411,344	2,688,066	1,996,488	1,527,984
Wheat.....	{ bushels.. 4,379,341	6,581,217	4,383,023	9,248,300	3,559,095
	{ dollars.. 6,099,300	8,997,318	5,046,138	10,546,686	4,153,356
Flour.....	{ barrels.. 474,202	540,317	302,789	419,936	276,439
	{ dollars.. 2,939,814	3,234,816	1,564,434	2,238,170	1,544,508
Potatoes.....	{ bushels.. ..	..	..	..	231,451
	{ dollars.. ..	..	..	..	86,508
Total agricultural products.....	dollars.. 17,229,672	20,035,350	17,802,666	24,917,706	10,453,044
Manufactures:					
Extract of hemlock bark..	{ barrels.. 13,629	9,776	22,622	28,725	15,823
	{ dollars.. 107,406	96,714	233,280	383,940	163,782
Leather.....	{ dollars.. 318,330	349,434	534,114	1,148,904	732,898
Sewing-machines.....	{ number.. 34,558	23,401	21,832	31,399	26,690
	{ dollars.. 370,818	255,636	257,580	320,760	263,412
Total manufactures.....	dollars.. 796,554	701,784	1,024,974	1,853,604	1,160,082
All other articles.....	25,536,813	19,861,013	13,275,621	13,285,364	14,210,694
Total exports of merchandise from the Dominion.....	dollars.. 85,970,295	87,346,117	76,826,213	78,508,828	74,876,090
Exports of specie and bullion.....	dollars.. 4,942,240	3,122,710	2,735,787	3,474,686	1,946,836
GRAND TOTAL.....	dollars.. 90,912,535	90,468,827	79,562,000	81,973,514	76,822,926
NEWFOUNDLAND.					
Codfish, dry.....	{ pounds.. 111,959,344	139,923,840	99,510,768	85,018,789	83,400,240
	{ dollars.. 4,116,506	5,230,818	4,087,260	4,089,690	3,513,740
Copper ore.....	{ tons.. ..	..	..	27,667	52,198
	{ dollars.. ..	..	..	622,566	1,279,638
Oil:					
Cod, unrefined.....	{ gallons.. 1,003,212	718,452	697,032	571,536	773,120
	{ dollars.. 564,246	461,700	492,804	367,416	409,698
Cod, refined.....	{ gallons.. 97,272	53,676	21,420	28,728	37,548
	{ dollars.. 80,190	49,572	18,468	32,076	28,674
Seal, refined.....	{ gallons.. 1,554,084	1,101,996	1,218,824	1,180,368	1,500,408
	{ dollars.. 811,620	620,186	642,006	644,922	771,768
Skins, seal.....	{ number.. 449,727	392,228	370,679	341,292	431,373
	{ dollars.. 478,224	516,132	487,944	449,064	327,564
All other articles.....	dollars.. 507,889	549,374	783,918	438,372	596,030
Total exports from Newfoundland.....	dollars.. 6,618,675	7,427,732	6,512,400	6,644,106	6,927,152
Total for British North America.....	dollars.. 97,531,210	97,896,559	86,074,400	88,622,620	83,750,978

BRITISH NORTH AMERICA—Continued.

exported (years ending June 30)—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
7,965,762	6,084,900	8,211,842	9,670,875	12,870,124	9,010,328	8,682,746	9,371,788
4,828,922	5,223,042	5,229,978	7,182,050	11,447,244	7,125,732	5,692,518	5,687,172
3,967,060	5,420,859	4,547,942	5,287,604	2,220,900	819,605	3,802,474	2,007,674
2,709,450	2,789,154	2,211,900	2,648,214	1,370,520	593,406	2,485,404	1,292,274
2,430,841	2,514,598	4,742,028	2,928,532	4,148,650	1,024,023	1,431,744	2,367,605
1,059,480	853,416	1,736,964	1,206,738	1,751,058	466,560	533,628	893,698
2,420,049	2,715,252	3,819,112	4,245,520	3,521,496	2,339,287	2,553,091	2,698,778
2,009,124	2,083,024	3,014,658	3,521,556	3,231,900	2,191,374	2,061,126	2,075,706
8,569,243	9,767,555	12,169,493	9,092,279	6,438,533	10,733,535	3,021,188	5,422,805
11,776,752	10,070,660	13,719,294	9,756,936	8,255,682	11,849,652	8,354,372	6,053,914
479,245	580,778	561,484	501,455	508,120	626,340	284,504	161,054
2,792,070	2,635,578	3,015,696	2,500,966	2,978,694	2,796,666	1,441,476	715,878
3,124,334	2,665,078	1,427,815	2,351,290	3,800,162	2,424,979	753,435	670,715
1,416,690	1,283,526	466,560	867,024	2,297,322	1,061,910	231,336	234,252
26,590,488	24,937,400	29,894,440	27,633,474	31,332,420	26,020,300	15,799,800	15,951,894
19,442	10,602	18,641	22,034	29,879	40,324	37,946	15,766
189,753	103,032	173,988	192,456	237,354	333,396	360,612	203,148
837,864	474,822	601,182	536,544	570,564	831,552	525,366	519,826
30,443	26,850	27,684	22,612	22,670	9,187	10,592	9,438
277,020	222,588	205,578	169,614	156,006	69,984	122,472	69,984
1,304,617	800,442	980,748	898,614	964,224	904,932	1,008,450	792,958
11,810,832	11,140,054	14,734,501	16,478,657	18,249,429	17,351,822	15,066,085	15,823,748
73,104,665	70,715,610	85,629,867	97,759,843	101,431,407	97,749,637	88,149,149	86,094,770
1,210,548	1,069,263	3,380,484	1,759,611	1,969,175	1,562,096	3,132,129	3,021,841
80,315,213	72,384,893	89,010,351	99,519,454	103,400,582	99,311,733	91,281,278	89,116,611
77,765,968	111,365,408	120,835,008	131,433,120	115,054,128	139,360,608	134,185,344	115,887,520
3,124,180	3,534,192	3,323,754	5,189,508	5,036,418	4,785,156	4,783,425	3,352,914
39,405	31,246	24,246	30,086	21,190	13,587	5,955	5,171
798,012	517,590	446,148	554,040	477,336	260,010	100,602	108,518
742,392	1,076,040	1,023,120	1,051,948	978,516	740,124	929,376	556,164
241,056	433,026	555,012	490,374	455,868	368,874	477,738	280,422
15,876	47,376	32,760	45,864	82,656	101,808	59,220	58,968
28,674	30,132	19,440	36,618	16,038	78,420	49,440	48,357
1,487,556	1,570,716	999,684	1,719,900	831,852	1,345,932	1,000,188	867,132
717,336	906,042	622,566	768,366	414,558	670,680	466,560	348,462
419,220	457,855	261,508	408,479	178,812	322,696	266,290	288,596
296,946	324,648	211,896	372,276	181,278	326,592	323,676	217,242
494,262	547,236	627,310	501,418	507,251	657,238	447,768	434,776
5,701,266	5,992,866	5,706,126	7,916,600	7,068,747	7,146,970	6,649,209	4,785,691
86,016,479	78,377,759	94,716,477	107,436,054	110,489,329	106,458,708	97,930,487	93,902,303

BRITISH HONDURAS.*Value of imports, including bullion*

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom.....	775, 170	477, 738	461, 680	485, 708	410, 670
United States	296, 890	322, 218	326, 106	250, 776	346, 102
Mexico	3, 657	20, 808	25, 272	26, 924	29, 180
Central American States	41, 796	40, 824	32, 076	27, 118	18, 711
All other countries	30, 436	5, 336	6, 926	3, 612	14, 104
TOTAL IMPORTS	1, 149, 949	867, 014	852, 660	794, 138	812, 747

Value of exports, domestic and foreign, including

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom	623, 396	654, 652	506, 845	619, 650	459, 270
United States.....	150, 000	133, 650	170, 586	93, 798	117, 612
Mexico		47, 628	13, 122	226, 274	26, 938
Central American States	253, 692	333, 233	285, 768	31, 104	544
All other countries	21, 836	289	7, 887	30, 375	720
TOTAL EXPORTS.....	1, 054, 586	1, 169, 452	984, 208	1, 003, 201	*606, 684

* Domestic products only for 1877 and 1878.

BRITISH HONDURAS.

and specie, from the several countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
538,488	385,378	567,294	527,796	591,290	714,150	638,012	553,386
340,200	290,142	821,732	397,062	498,275	452,735	409,733	450,335
36,808	2,959	24,788	8,262	Entered with "all other countries."			20,465
11,907	93,798	208,496	39,852	60,600	106,397	79,107	199,397
3,248	4,754	503	7,829	14,246	71,583	60,838	44,697
930,646	777,081	1,132,811	980,801	1,164,411	1,344,865	1,187,690	1,274,260

bullion and specie, to the several countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
458,780	572,994	571,370	668,298	660,890	887,427	1,025,162	708,866
155,471	231,616	279,299	260,762	327,475	253,071	260,185	258,240
13,608	37,422	131,137	66,641	Entered with "all other countries."			33,585
9	79,704	227,666	206,057	171,535	351,718	202,423	211,817
8,828	894	19,408	.....	103,203	22,130	99,466	6,893
* 638,694	912,130	1,228,875	1,202,378	1,263,103	1,514,346	1,587,246	1,221,401

BRITISH HONDURAS—Continued.

Quantities and value of principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
Beef and pork { barrels... { dollars...					
Cattle..... { number... { dollars...	1,287 21,870	1,736 18,954	1,578 13,008	1,252 12,350	1,351 13,123
Coffee..... { pounds... { dollars...	76,214 11,664	65,333 10,206	451,67 6,804	46,779 5,832	44,050 5,346
Cotton goods..... dollars...					
Drapery..... dollars...					
Flour..... dollars...					
Hardware..... dollars...					
Leather and manufactures of..... dollars...					
Lumber..... { feet... { dollars...	597,551 19,926	1,041,481 35,478	908,670 30,182	589,950 19,926	624,537 21,384
Malt liquors..... { gallons... { dollars...	16,330 16,038	10,952 10,692	8,543 8,748	8,543 8,282	8,804 8,748
Soap..... dollars...					
Spirits..... { gallons... { dollars...	15,168 11,178	13,991 10,206	11,526 14,094	12,964 28,188	10,253 22,356
Tobacco..... { pounds... { dollars...	71,927 13,122	73,593 8,608	72,955 13,122	55,229 10,206	65,705 11,178
Wines..... { gallons... { dollars...	7,902 21,870	4,313 12,636	10,130 16,526	4,154 7,290	7,267 10,692
All other articles..... dollars...	1,084,281	760,224	749,126	702,084	719,921
TOTAL IMPORTS..... dollars...	1,149,949	867,014	852,060	794,138	812,747

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Cocoanuts..... { number... { dollars...	259,980 3,790	362,463 5,538	276,767 4,306	361,680 4,636	604,399 8,748
Cedar..... { feet... { dollars...	297,540 17,962	249,169 7,290	113,513 6,861	18,920 957	77,582 3,928
Logwood..... { tons... { dollars...	9,657 104,136	10,320 143,370	9,160 127,332	16,071 243,972	16,069 231,336
Mahogany..... { feet... { dollars...	3,766,894 842,630	6,213,784 377,620	2,462,336 149,688	1,821,307 101,574	3,080,807 155,982
Sugar..... { pounds... { dollars...	3,019,520 111,294	3,357,760 123,930	5,187,840 157,464	4,518,080 147,258	4,327,680 150,174
All other articles..... dollars...	7,106	3,401	5,363	3,588	54,916
Total domestic produce..... dollars...	616,938	665,149	451,003	506,965	605,084
Foreign produce..... dollars...	437,648	504,303	533,205	493,206	Not stated.
TOTAL DOMESTIC AND FOREIGN..... dollars...	1,054,586	1,169,452	984,208	1,000,201	

BRITISH HONDURAS—Continued.

imported, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
	23,814	30,618	38,804				
982							
11,525	18,954	4,800	16,038				
113,097							
13,604	61,236	30,618	18,468				
	136,566	93,798	231,822				
	62,208	70,470	37,423				
	52,974	51,516	61,722				
	15,066	32,562	41,310				
	21,384	20,896	36,450				
682,065							
23,328	13,122	13,608	18,468				
10,918							
10,692	12,636	19,440	10,206				
	89,866	19,926	29,646				
6,377							
14,094	16,038	16,135	18,954				
70,320							
12,150	8,748	9,234	10,692				
4,800							
11,664	11,664	12,150	12,636				
533,585	283,285	626,978	298,573				
930,646	777,031	1,152,811	980,801	1,164,411	1,344,865	1,187,490	1,274,280

articles of domestic produce exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
698,164	919,100	1,623,031	1,421,817				
10,206	13,122	26,730	29,646				
87,129	304,000	241,167	199,838				
5,346	14,774	11,664	12,150				
15,348	14,150	21,233	19,617				
213,354	202,662	350,892	323,676				
3,146,582	3,198,325	2,196,793	2,665,720				
190,998	167,670	106,774	153,234				
3,888,640	4,485,936	6,288,352	4,327,680				
135,008	116,640	203,034	187,110				
81,082	19,804	41,101	16,036				
636,694	534,615	740,197	724,888				
Not stated.	377,515	488,678	477,490				
	912,130	1,228,875	1,202,378	1,263,103	1,514,346	1,587,246	1,231,403

BRITISH GUIANA.

Value of imports, including bullion

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom	4,541,670	4,628,178	4,506,192	5,168,136	5,248,314
British West Indies	573,906	484,056	448,578	255,636	365,472
*Other British Possessions	1,256,796	1,620,810	1,414,260	1,660,176	2,134,512
United States	1,703,430	1,890,540	1,773,414	1,877,904	2,406,672
All other countries	500,268	480,265	786,144	635,080	682,383
TOTAL IMPORTS.....	8,576,220	9,103,849	8,928,588	9,687,782	10,837,353

* India and Canada, principally.

Value of exports, including bullion

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom	7,462,044	9,424,512	8,480,700	11,335,464	9,499,842
British West Indies	463,158	100,026	244,458	259,038	513,216
*Other British Possessions	337,770	404,838	365,958	329,508	442,260
United States.....	1,825,500	2,638,008	1,409,400	2,199,636	3,568,764
All other countries	688,248	765,149	857,897	611,237	796,821
TOTAL EXPORTS.....	10,776,720	13,422,533	11,358,413	14,734,863	14,818,903

* Canada, chiefly.

BRITISH GUIANA.

and specie, from the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
5, 306, 148	5, 208, 462	4, 809, 720	4, 052, 268	5, 901, 498	6, 152, 274	5, 340, 570	3, 519, 126
309, 006	362, 070	337, 770	432, 540	419, 518	253, 602	862, 650	242, 028
1, 819, 584	1, 745, 712	1, 811, 808	1, 509, 912	1, 354, 965	1, 705, 374	1, 497, 366	1, 396, 278
2, 630, 116	2, 038, 284	1, 978, 020	1, 933, 794	1, 885, 194	2, 032, 378	1, 521, 724	1, 678, 155
581, 206	681, 501	735, 785	652, 431	643, 041	648, 407	495, 207	295, 800
10, 496, 210	10, 636, 119	9, 733, 103	8, 670, 945	10, 204, 216	10, 812, 125	9, 717, 517	7, 131, 477

and specie, to the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
9, 087, 228	10, 543, 284	8, 187, 156	8, 609, 004	9, 537, 264	7, 724, 400	8, 638, 164	6, 283, 960
1, 195, 074	349, 920	401, 436	314, 442	458, 784	375, 192	504, 954	312, 964
151, 146	366, 444	334, 368	393, 660	410, 670	490, 636	196, 440	113, 724
965, 682	1, 098, 019	2, 921, 346	2, 496, 526	4, 437, 066	5, 893, 722	1, 368, 576	1, 496, 824
787, 670	845, 078	877, 352	807, 202	749, 563	932, 028	576, 942	542, 487
12, 186, 800	13, 197, 500	12, 721, 658	12, 622, 834	15, 593, 947	15, 415, 978	11, 285, 076	8, 751, 999

† The total for 1878 in the table of exports of articles given as amounting to only \$11,214,780.

BRITISH GUIANA—Continued.

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Butter { pounds ..	465,543	428,983	309,204	492,797	648,626
..... { dollars ..	181,706	157,950	78,732	105,948	135,594
Flour { barrels ..	97,998	107,161	116,639	98,366	100,071
..... { dollars ..	659,016	710,046	688,232	586,602	805,302
Fish, dried..... { pounds ..	9,795,744	10,033,744	7,830,144	10,950,272	10,749,536
..... { dollars ..	350,892	390,764	285,768	385,898	437,400
Lumber { feet.....	14,614,001	13,045,385	13,166,197	12,359,549	18,949,450
..... { dollars ..	243,972	803,750	267,800	271,188	395,604
Machinery..... dollars ..	304,236	290,628	347,004	486,000	622,080
Malt liquors .. dollars ..	252,720	285,768	.....	178,848	210,438
Manure dollars ..	372,276	388,800	514,674	653,184	527,796
Oils dollars ..	135,566	175,443	117,126	202,602	240,084
Opium dollars ..	134,622	124,416	61,236	94,770	110,808
Pork..... { barrels ..	12,856	13,979	15,087	14,741	18,752
..... { dollars ..	175,502	233,766	191,484	132,678	334,854
Rice { pounds ..	32,157,337	33,027,185	36,732,610	52,867,360	43,432,320
..... { dollars ..	632,286	978,318	1,087,182	963,232	1,319,976
Spirits { gallons ..	54,466	48,196	92,254	48,872	65,080
..... { dollars ..	130,248	131,766	166,212	109,836	134,622
All other articles..... dollars ..	5,053,042	4,932,431	5,125,638	5,407,416	5,562,795
TOTAL IMPORTS dollars ..	8,576,220	9,103,849	8,928,588	9,637,782	10,837,353

Value of exports, including bullion

Articles.	1873.	1874.	1875.	1876.	1877.
Molasses { casks	13,022	19,105	14,759	14,418	20,172
..... { dollars	265,758	559,872	385,898	349,920	530,712
Rice { pounds	8,167,680	1,959,787	4,913,784	8,292,120	13,029,920
..... { dollars	212,382	155,034	422,120	214,326	453,438
Rum { puncheons ..	28,690	30,474	29,894	36,219	32,725
..... { dollars	1,735,992	2,363,904	1,745,712	1,905,120	1,393,362
Sugar, raw..... { hogsheads ..	95,724	99,090	93,928	120,031	112,700
..... { dollars	7,907,706	9,625,230	8,108,424	11,703,366	11,723,292
All other articles dollars ..	654,882	718,493	696,759	562,151	718,099
TOTAL EXPORTS dollars ..	10,776,720	13,422,533	11,358,413	14,734,883	14,818,903

*The total exports to the several countries for 1878

BRITISH GUIANA—Continued.

imports, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
680,351 127,818	630,193 120,042	610,091 134,136	710,125 149,202	737,241 154,062	720,232 152,604	715,080 134,136	680,894 122,958
137,800 1,013,796	142,146 759,132	120,328 639,576	132,585 763,020	103,734 613,322	137,420 611,388	135,308 530,712	141,450 621,594
8,172,080 309,096	9,165,184 348,048	8,779,096 271,674	8,635,360 264,870	8,802,448 361,098	7,906,640 489,888	8,471,568 268,084	8,353,000 251,162
12,218,519 220,158	13,606,783 233,280	12,011,541 166,698	12,551,404 170,100	17,672,390 267,800	14,997,960 256,122	14,428,742 229,878	8,414,170 123,930
659,988 241,056	615,762 175,446	274,590 142,800	289,170 142,884	758,160 163,296	716,810 201,204	887,436 158,436	224,532 103,032
540,432 260,496 97,200	512,730 187,596 87,460	550,152 166,698 111,780	546,264 158,436 124,416	591,462 196,288 79,704	739,132 223,560 117,126	428,166 172,316 87,480	377,706 161,352 55,890
19,416 219,186	16,897 186,138	15,469 213,840	14,848 251,262	12,611 267,786	19,024 343,602	16,307 239,598	22,031 278,964
44,348,430 1,347,192	39,022,400 1,241,244	45,260,926 1,335,528	49,888,086 1,171,260	43,964,091 996,800	50,548,416 1,019,628	40,889,828 1,063,368	50,572,790 1,085,238
61,220 123,930	45,068 129,276	40,957 111,294	24,821 81,648	34,928 117,126	49,670 119,070	30,910 98,658	17,326 53,460
4,461,062	5,439,045	5,611,337	4,558,413	5,636,812	5,821,994	5,309,248	3,671,559
10,496,210	10,086,119	9,733,103	8,670,945	10,204,216	10,812,128	9,717,517	7,131,477

and specie, to the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
13,790 422,334	16,161 362,688	17,700 375,192	15,740 389,772	18,848 386,864	20,772 506,412	12,854 224,252	19,362 168,156
6,509,120 240,570	5,118,252 166,212	8,438,540 258,552	6,709,627 170,586	9,586,641 235,710	9,265,700 223,560	1,132,259 26,674	10,035,338 202,109
26,054 1,258,740	30,490 1,481,814	24,675 890,506	23,585 1,393,156	26,220 1,449,738	26,514 1,288,872	33,400 1,217,430	28,353 1,004,562
86,994 8,678,502	106,866 10,388,250	111,551 10,329,930	104,625 9,960,084	139,187 12,662,244	129,585 12,867,590	189,246 8,650,780	106,732 6,730,128
614,634	768,536	858,578	709,236	857,371	529,544	944,940	647,051
*11,214,780	13,197,500	12,721,658	12,622,834	15,593,947	15,415,978	11,285,076	8,751,999

for 1878 is given in the official returns as amounting to \$12,186,800.

BRITISH WEST INDIES.*

Value of imports, including bullion and

Countries.	1873.	1874.	1875.	1876.	1877.
<i>Jamaica.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom	5,080,158	4,940,676	4,697,190	4,704,480	4,048,380
British North America	969,084	1,084,308	910,784	950,130	938,466
British West Indies	50,544	84,020	84,506	17,982	81,104
British India	129,276	43,254	84,078	83,106	122,472
Germany	24,506	52,488	60,264	61,236	30,132
France	30,618	59,292	70,956	104,076	86,022
United States	2,075,706	2,203,038	2,624,886	2,273,084	2,202,066
Foreign West Indies	46,170	43,768	51,030	24,300	22,842
All other	6,906	107,503	19,834	43,021	62,888
TOTAL IMPORTS	8,422,968	8,567,305	8,553,508	8,263,215	7,514,372
<i>Barbadoes.</i>					
United Kingdom	1,774,872	1,870,128	2,153,466	1,908,522	2,149,578
British North America	380,052	392,202	450,030	340,608	395,604
British West Indies	258,206	177,890	173,502	163,782	179,923
British Guiana	290,718	93,798	120,846	124,416	146,286
Foreign West Indies	68,526	30,132	44,226	71,928	44,712
United States	2,358,558	2,223,450	2,348,352	2,149,092	2,209,356
Peru	630,342	121,986	308,610	104,490	281,394
Argentine Republic	68,040	17,496	53,890	17,496	.....
All other countries	67,222	85,283	110,288	114,677	154,503
TOTAL IMPORTS	5,801,536	5,011,805	5,771,210	4,995,011	5,561,356
<i>Trinidad.</i>					
United Kingdom	2,732,778	2,374,596	2,583,576	2,778,462	2,395,008
British India	314,443	257,580	442,746	407,754	377,136
British North America	292,572	835,540	281,384	375,678	416,988
British West Indies	585,144	573,966	424,278	433,998	614,790
France	317,844	355,752	416,502	474,922	431,568
French West Indies	36,936	68,940	72,414	50,544	74,844
Portuguese Possessions	8,718	8,791	5,054	10,692	8,748
Spain	60,750	61,236	55,890	37,422	63,666
Spanish West Indies	10,692	13,608	25,272	16,524	23,828
United States	934,578	1,306,854	1,353,196	1,471,122	1,756,634
Venezuela	1,046,358	1,113,426	1,515,834	1,820,556	1,973,188
All other	101,132	62,557	151,833	220,488	106,008
TOTAL IMPORTS	6,436,944	6,526,946	7,327,969	8,098,062	8,303,106

* Statistics of imports and exports by countries are

BRITISH WEST INDIES.

specie, from the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 3, 679, 506 1, 011, 862	<i>Dollars.</i> 3, 534, 474 914, 166	<i>Dollars.</i> 3, 779, 136 534, 948	<i>Dollars.</i> 3, 140, 046 716, 364	<i>Dollars.</i> 3, 530, 804 717, 823	<i>Dollars.</i> 4, 577, 148 832, 032	<i>Dollars.</i> 4, 368, 654 831, 472	<i>Dollars.</i> 3, 699, 432 861, 192
52, 488 69, 984	23, 328 59, 292	16, 038 112, 266	28, 188 158, 436	28, 188 117, 126	33, 324 95, 742	47, 628 133, 650	69, 984 94, 770
31, 104 78, 246	91, 104 49, 572	16, 038 40, 824	7, 776 21, 384	14, 094 22, 356	9, 238 19, 926	126 25, 272	437 22, 356
2, 288, 574 26, 730	2, 056, 266 9, 720	2, 304, 126 5, 832	2, 671, 542 4, 238	1, 969, 552 6, 804	2, 057, 724 5, 346	2, 048, 976 6, 318	2, 256, 698 10, 206
16, 135	70, 150	60, 264	20, 412	28, 480	106, 446	44, 916	64, 030
7, 254, 619	6, 548, 072	7, 169, 472	6, 768, 376	6, 424, 726	7, 736, 926	7, 527, 012	7, 079, 105
1, 707, 804 395, 118	1, 805, 490 498, 486	2, 164, 158 508, 842	2, 117, 988 493, 776	2, 143, 746 441, 774	2, 239, 974 438, 372	2, 214, 216 498, 636	1, 513, 890 420, 390
179, 771 127, 818	165, 520 119, 556	178, 362 171, 072	216, 270 171, 558	218, 700 231, 822	178, 362 163, 782	163, 664 285, 768	168, 156 126, 446
64, 152 2, 702, 160	42, 768 2, 176, 794	28, 188 2, 153, 486	36, 450 2, 193, 804	45, 198 2, 168, 532	71, 442 2, 195, 262	54, 432 2, 124, 792	63, 665 1, 672, 326
47, 628 28, 674	21, 870	274, 104 18, 954	8, 262	158, 922 14	63	19, 440	40, 824
106, 157	165, 280	192, 631	201, 267	242, 826	327, 660	253, 330	322, 656
5, 350, 282	4, 973, 714	5, 689, 777	5, 439, 375	5, 651, 534	5, 614, 926	5, 619, 278	4, 328, 753
3, 127, 410 563, 760	3, 760, 668 629, 856	4, 082, 400 546, 750	4, 026, 024 296, 404	3, 928, 824 502, 038	4, 266, 594 451, 494	4, 310, 820 422, 820	3, 181, 842 262, 440
843, 602 512, 244	889, 772 449, 550	390, 744 351, 378	350, 892 375, 192	298, 058 258, 206	265, 842 447, 120	296, 890 513, 108	278, 132 449, 550
476, 766 50, 544	755, 730 43, 740	855, 846 273, 618	634, 716 39, 852	624, 024 24, 786	508, 356 28, 188	766, 422 35, 478	414, 558 46, 170
81, 162	20, 412 107, 892	12, 150 90, 396	51, 030 91, 854	12, 636 95, 742	19, 926 81, 648	44, 712 71, 246	23, 814 46, 656
9, 720 1, 665, 608	14, 094 1, 787, 508	57, 348 1, 903, 366	23, 328 1, 983, 794	23, 328 1, 958, 560	31, 590 2, 130, 138	25, 272 2, 068, 416	52, 488 1, 917, 270
2, 185, 056 224, 937	2, 553, 930 291, 945	2, 760, 966 254, 634	2, 768, 742 228, 060	3, 648, 402 298, 380	4, 443, 494 267, 897	6, 150, 330 280, 094	3, 632, 110 1, 365, 553
9, 240, 809	10, 805, 097	11, 579, 596	10, 821, 888	11, 663, 004	12, 942, 287	14, 987, 608	11, 865, 683

given only for Jamaica, Barbadoes, and Trinidad.

BRITISH WEST INDIES—Continued.

Value of exports, including bullion and

Countries.	1873.	1874.	1875.	1876.	1877.
<i>Jamaica.</i>					
United Kingdom	<i>Dollars.</i> 4,854,168	<i>Dollars.</i> 5,547,690	<i>Dollars.</i> 5,608,440	<i>Dollars.</i> 5,967,008	<i>Dollars.</i> 5,633,226
British North America	22,358	38,880	33,048	17,010	3,892
British West Indies	52,002	79,704	78,246	69,498	53,940
Germany	97,200	102,546	78,733	130,734	70,956
France	4,627	58,806	45,198	93,798	28,674
United States	501,096	748,038	792,666	740,178	1,073,574
Foreign West Indies	200,718	65,124	52,002	110,322	91,368
Hayti	122,472	176,904	77,780	141,912	44,226
All other	103,374	190,817	88,865	92,233	89,269
TOTAL EXPORTS	5,958,018	7,008,509	6,854,957	7,362,693	7,089,131
<i>Barbadoes.</i>					
United Kingdom	2,299,032	2,714,796	3,802,464	2,229,282	2,356,128
British North America	329,022	443,232	562,714	356,724	249,318
British West Indies	1,329,210	924,858	1,021,572	1,030,432	834,948
British Guiana	231,336	233,766	286,254	165,240	189,792
Foreign West Indies	159,894	147,744	121,986	86,994	90,882
United States	610,416	1,009,422	1,294,704	786,348	1,562,622
All other	27,138	70,310	58,369	31,298	31,162
TOTAL EXPORTS	4,977,048	5,544,128	7,168,063	4,686,318	5,335,852
<i>Trinidad.</i>					
United Kingdom	6,707,772	4,765,230	5,931,144	6,067,224	6,684,676
British North America	24,300	86,994	60,750	51,516	54,432
British West Indies	191,484	90,882	119,566	181,278	188,566
France	239,112	463,158	310,554	431,082	568,620
French West Indies	58,320	53,940	55,890	80,670	42,768
Spain	10,206	51,030	56,862	4,850	5,832
Spanish West Indies	55,404	.....	5,832	3,346	9,525
United States	258,552	341,658	524,394	422,334	954,504
Venezuela	465,588	542,376	587,574	595,350	1,223,122
All other countries	414,631	468,314	245,333	114,318	239,092
TOTAL EXPORTS	8,425,369	6,863,588	7,897,899	7,953,968	10,175,139

BRITISH WEST INDIES—Continued.

specie, to the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 4, 639, 356	<i>Dollars.</i> 4, 833, 756	<i>Dollars.</i> 4, 948, 452	<i>Dollars.</i> 3, 806, 352	<i>Dollars.</i> 4, 705, 038	<i>Dollars.</i> 3, 889, 458	<i>Dollars.</i> 3, 127, 696	<i>Dollars.</i> 2, 618, 708
3, 688	69, 498	381, 024	356, 724	971, 028	1, 190, 214	965, 682	819, 788
65, 610	241, 542	115, 068	138, 024	86, 508	145, 800	*262, 926	151, 632
31, 104	50, 058	64, 638	65, 124	85, 050	55, 890	77, 760	161, 838
74, 844	88, 452	111, 294	81, 162	87, 480	113, 238	85, 050	128, 444
832, 518	983, 608	1, 478, 412	1, 086, 606	1, 339, 902	1, 410, 858	2, 244, 834	2, 898, 158
169, 128	198, 774	80, 190	71, 928	47, 142	98, 172	12, 150	17, 010
29, 160	16, 524	24, 786	31, 590	10, 692	28, 188	41, 796	8, 748
88, 618	115, 588	148, 614	90, 867	194, 282	209, 694	394, 093	581, 363
5, 884, 026	6, 597, 300	7, 353, 078	5, 727, 967	7, 528, 022	7, 141, 512	7, 212, 187	6, 870, 089
2, 191, 800	2, 914, 542	2, 449, 826	2, 206, 836	2, 475, 198	2, 142, 288	2, 320, 650	1, 666, 950
504, 468	1, 011, 360	807, 732	1, 008, 936	1, 278, 666	532, 666	1, 271, 862	559, 386
919, 644	791, 208	773, 712	719, 280	695, 952	657, 052	680, 828	558, 414
183, 223	189, 054	143, 370	180, 306	195, 858	121, 014	229, 392	225, 504
62, 694	72, 900	55, 890	56, 862	26, 244	20, 898	56, 862	49, 089
1, 194, 588	1, 038, 096	1, 407, 942	1, 330, 668	1, 087, 182	1, 960, 450	1, 822, 500	1, 801, 116
154, 597	102, 342	30, 079	36, 746	40, 814	91, 153	77, 658	18, 472
5, 241, 073	6, 119, 508	5, 068, 651	5, 542, 154	5, 799, 414	5, 545, 511	6, 409, 752	4, 878, 928
6, 058, 476	7, 098, 516	5, 656, 068	4, 840, 074	5, 231, 790	3, 954, 096	4, 195, 638	5, 765, 904
72, 900	115, 182	229, 892	410, 670	531, 198	859, 640	295, 974	99, 012
116, 640	84, 078	109, 836	104, 976	116, 154	113, 724	138, 510	169, 156
514, 674	1, 372, 950	1, 510, 002	1, 572, 130	2, 547, 612	3, 086, 586	3, 906, 468	899, 586
47, 142	34, 020	81, 648	44, 226	105, 948	128, 846	199, 260	191, 970
4, 461	.....	6, 818	11, 664	27, 216	49, 086	53, 946	21, 870
.....	.....	150	49	5, 832	5, 346	1, 078	183
820, 368	503, 010	1, 272, 834	941, 382	1, 661, 634	2, 482, 190	2, 955, 852	2, 743, 470
1, 229, 094	1, 629, 558	1, 553, 742	2, 112, 156	1, 533, 330	1, 725, 786	1, 486, 188	854, 388
74, 271	169, 347	201, 598	164, 304	156, 166	151, 916	227, 959	204, 248
8, 938, 026	11, 006, 661	10, 621, 588	10, 201, 631	11, 916, 880	13, 057, 216	13, 460, 873	10, 918, 787

† Including Guiana.

BRITISH WEST INDIES—Continued.

Quantities and value of imports,

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Jamaica.</i>					
Ale and beer..... { gallons	288, 330	282, 188	275, 228	265, 629	220, 916
{ dollars	210, 438	205, 578	192, 456	285, 652	153, 576
Bread..... { pounds	874, 048	861, 616	988, 004	820, 736	726, 096
{ dollars	52, 974	52, 002	30, 964	49, 572	40, 824
Butter..... { pounds	546, 008	508, 896	543, 872	528, 080	556, 976
{ dollars	177, 390	170, 586	176, 418	171, 072	167, 184
Coal..... { tons	44, 819	50, 159	35, 152	37, 236	31, 682
{ dollars	496, 000	527, 810	334, 854	306, 666	254, 664
Corn meal..... { barrels	18, 393	19, 119	28, 790	19, 928	12, 280
{ dollars	89, 910	99, 630	144, 342	101, 088	59, 778
Cotton manufactures..... dollars	896, 184	972, 486	1, 043, 442	1, 267, 002	1, 036, 638
Fish:					
Dried..... { pounds	10, 203, 760	11, 645, 880	9, 395, 712	10, 077, 648	10, 101, 504
{ dollars	496, 206	603, 126	492, 318	638, 002	489, 885
Wet..... { barrels	56, 600	54, 398	47, 754	51, 343	61, 169
{ dollars	329, 508	331, 454	345, 540	347, 004	407, 754
Flour..... { barrels	98, 886	103, 086	140, 801	126, 405	97, 165
{ dollars	892, 782	906, 876	1, 180, 494	905, 904	778, 086
Haberdashery..... dollars	411, 700	728, 514	487, 944	420, 876	386, 370
Hardware..... dollars	392, 608	476, 222	320, 760	320, 274	330, 788
Linen manufactures..... dollars	254, 178	271, 671	169, 128	160, 380	121, 500
Pork, salted..... { barrels	7, 687	8, 715	7, 736	7, 778	7, 869
{ dollars	168, 286	193, 428	166, 212	179, 334	172, 044
Rice..... { pounds	8, 389, 612	7, 526, 410	10, 501, 349	8, 544, 153	7, 725, 198
{ dollars	285, 283	256, 122	843, 948	276, 076	243, 972
Soap..... { pounds	2, 435, 570	2, 382, 700	2, 478, 014	2, 517, 581	2, 704, 609
{ dollars	147, 744	144, 628	148, 716	153, 090	161, 754
Woolens..... dollars				198, 288	164, 754
All other..... dollars	3, 131, 692	2, 627, 472	2, 970, 972	2, 503, 835	2, 562, 801
TOTAL FOR JAMAICA..... dollars	8, 422, 063	8, 567, 305	8, 553, 508	8, 203, 215	7, 544, 372
<i>Barbadoes.</i>					
Butter..... { pounds	597, 977	534, 845	612, 558	640, 479	863, 247
{ dollars	145, 314	129, 762	148, 716	155, 520	209, 952
Corn and grain..... { bushels	286, 125	343, 481	382, 655	282, 301	333, 543
{ dollars	208, 808	250, 290	282, 852	205, 578	243, 972
Corn meal..... { barrels	69, 735	73, 403	65, 402	65, 281	65, 360
{ dollars	271, 188	285, 282	254, 654	253, 692	254, 178
Flour..... { barrels	117, 575	117, 293	112, 674	106, 126	80, 668
{ dollars	714, 420	712, 476	684, 288	644, 922	489, 886
Fish, dried..... { quintals ..	88, 900	103, 688	90, 877	78, 269	92, 883
{ dollars	244, 458	202, 778	264, 670	228, 420	270, 702
Hardware and metals..... dollars	124, 902	174, 474	193, 428	167, 670	160, 646
Linens and cottons..... dollars	679, 914	783, 918	841, 752	756, 702	897, 156
Lumber..... { feet	9, 048, 693	8, 396, 818	8, 640, 512	5, 968, 967	7, 548, 499
{ dollars	87, 966	80, 676	84, 073	57, 834	73, 386
Manure, guano..... { tons	12, 443	3, 008	7, 386	6, 349	8, 704
{ dollars	539, 940	131, 220	316, 386	275, 076	380, 052
Meat, salted..... { pounds	3, 444, 820	2, 625, 530	2, 890, 972	3, 036, 022	3, 345, 890
{ dollars	273, 966	212, 968	234, 252	243, 916	271, 188
Rice..... { pounds	7, 586, 539	7, 640, 440	7, 799, 151	8, 158, 003	8, 625, 331
{ dollars	184, 194	185, 762	189, 540	198, 288	209, 466

BRITISH WEST INDIES—Continued.

bullion and specie included.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
210,987 158,576	196,080 142,884	197,170 189,968	155,975 128,304	185,560 138,510	192,945 157,464	217,064 184,680	204,856 174,474
909,553 44,226	801,656 34,992	1,090,544 51,516	1,347,584 72,414	918,024 43,254	1,092,112 46,656	1,151,584 46,170	1,408,064 54,918
599,760 145,800	531,216 101,088	524,272 105,948	612,640 130,248	503,776 112,266	621,376 138,510	614,656 137,638	660,064 138,024
28,165 215,728	27,710 180,308	27,355 185,652	22,687 78,732	41,423 143,856	29,379 105,948	47,804 138,024	40,174 138,510
24,701 107,893	14,792 61,722	27,441 120,042	65,066 200,982	12,615 52,002	15,827 65,610	14,154 56,862	24,692 95,742
1,004,562	1,005,048	1,393,348	849,928	1,225,602	1,604,696	1,466,262	1,106,886
11,207,840 598,266	11,018,224 501,816	11,581,564 520,806	9,613,856 437,886	8,742,608 440,316	8,767,024 502,524	10,354,512 595,836	11,857,216 610,902
59,058 396,576	61,440 342,630	50,134 261,468	44,821 216,275	45,231 218,214	44,795 227,448	44,198 268,758	50,586 280,422
106,306 830,576	102,981 725,598	111,752 805,392	155,661 1,059,480	95,526 673,110	105,752 719,280	105,512 692,550	126,686 709,956
378,108 261,808 95,256	394,632 202,176 76,302	438,372 260,094 58,808	349,434 205,092 53,946	365,958 252,720 70,470	409,698 237,654 57,002	474,336 267,780 44,712	442,204 226,962 83,106
9,047 142,844	10,279 144,828	10,059 157,950	9,426 137,538	6,940 114,696	6,010 106,437	6,586 114,210	6,538 111,780
7,580,054 239,538	6,592,968 232,308	8,857,979 301,320	12,016,510 436,914	8,222,361 299,863	8,833,080 300,848	7,361,108 350,290	8,389,152 283,292
2,587,235 142,884	2,597,320 141,912	2,616,100 139,968	1,760,017 83,592	1,367,088 59,292	2,682,087 133,650	2,695,985 121,500	2,764,107 121,014
142,964 2,634,187	111,178 2,088,652	105,462 2,133,450	98,173 2,169,439	88,938 1,625,569	81,648 2,742,343	70,788 2,587,294	119,556 2,229,367
7,254,619	6,548,072	7,169,472	6,768,376	6,424,726	7,736,926	7,623,590	7,079,105
803,840 196,302	791,685 192,456	760,384 184,680	993,442 241,542	825,517 200,718	984,810 239,112	958,882 232,794	895,289 163,296
284,283 279,976	331,609 241,542	403,000 293,544	324,987 236,682	394,777 287,712	287,635 262,440	284,512 219,186	333,724 280,010
76,245 296,460	58,620 227,934	59,548 231,336	63,675 247,374	43,288 168,156	43,659 169,614	42,145 163,782	48,660 276,904
110,892 664,680	75,568 458,784	74,454 452,466	81,553 493,234	84,660 514,188	84,163 511,272	85,819 521,478	72,425 439,830
88,701 258,552	90,574 263,898	103,510 301,806	103,471 301,806	78,640 229,392	69,350 202,176	96,968 282,806	89,753 261,954
140,940 687,146	189,482 682,344	120,062 717,330	132,192 671,682	156,006 717,822	153,576 780,338	134,186 753,786	69,012 623,052
7,965,210 77,274	9,574,621 116,154	7,596,025 92,340	8,250,088 100,116	10,041,633 121,986	12,362,305 150,174	9,919,700 120,528	7,098,538 103,618
1,142 49,572	981 42,768	9,751 421,848	4,800 206,064	6,975 302,292	3,915 168,156	2,989 120,762	2,487 107,802
4,220,666 342,330	3,290,315 266,328	4,155,239 336,798	2,843,774 230,364	2,995,679 242,514	3,552,679 287,712	3,903,674 316,386	3,703,780 227,934
8,002,183 194,400	8,550,403 206,008	10,674,410 259,524	12,822,810 262,920	13,013,274 319,886	15,298,073 371,304	16,147,350 392,302	16,138,502 327,078

BRITISH WEST INDIES—Continued.

Quantities and value of imports,

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Barbadoes—Continued.</i>					
Staves..... { number...	8,490,089	5,095,707	5,878,879	2,377,220	3,539,841
{ dollars....	170,100	247,880	285,282	110,808	172,044
All other articles..... { dollars....	2,151,866	1,614,499	1,991,118	1,694,585	1,928,726
TOTAL FOR BARBADOES. dollars....	5,801,536	5,011,885	5,771,216	4,995,011	5,561,356
<i>Trinidad.</i>					
Cottons, linens, and woollens*. dollars....	756,216	739,692	825,228	919,026	799,470
Fish, dried..... { pounds...	5,409,679	5,423,130	4,391,243	4,911,046	6,114,225
{ dollars....	221,616	242,514	177,876	298,904	327,564
Flour..... { barrels...	53,477	56,876	68,912	68,852	71,756
{ dollars....	401,922	848,948	401,922	484,970	521,964
Hardware and machinery..... dollars....	560,190	377,136	513,216	410,184	380,032
Leather..... dollars....	172,580	180,806	177,876	256,608	178,362
Lumber, pine..... { feet...	8,589,178	9,262,710	10,018,211	8,141,636	10,592,752
{ dollars....	186,624	199,290	151,632	181,706	161,838
Meat, pickled, salted, dried, { pounds...	1,529,205	1,609,090	1,677,988	2,256,070	1,878,110
&c..... { dollars....	220,158	372,160	287,226	442,746	372,702
Rice..... { pounds...	11,991,787	10,921,432	16,317,498	15,852,446	16,118,528
{ dollars....	844,988	819,788	495,720	481,626	489,402
All other articles..... { dollars....	2,494,153	2,722,971	2,571,758	2,688,956	2,846,721
Total merchandise..... dollars....	5,863,497	5,402,775	5,612,454	6,064,726	6,078,135
Specie..... dollars....	1,073,447	1,124,171	1,625,485	2,033,336	2,224,071
TOTAL FOR TRINIDAD. dollars....	6,436,944	6,526,946	7,237,939	8,098,062	8,303,106
† RECAPITULATION.					
Jamaica..... dollars....	8,422,968	8,567,805	8,553,508	8,263,215	7,541,372
Barbadoes..... dollars....	5,801,536	5,011,885	5,771,216	4,995,011	5,561,356
Trinidad..... dollars....	6,436,944	6,526,946	7,237,939	8,098,062	8,303,106
Bahamas..... dollars....	889,228	190,512	211,896	205,678	186,624
Turk's Island..... dollars....	2,021	10,692	9,234	11,178	15,066
Saint Lucia..... dollars....	189,054	262,440	364,966	193,914	192,456
Saint Vincent..... dollars....	364,986	342,144	288,684	800,348	314,442
Grenada..... dollars....	200,232	229,392	279,450	234,738	292,572
Tobago..... dollars....	88,452	87,966	129,762	113,238	154,548
Saint Christopher..... dollars....	367,416	312,984	299,376	344,080	330,480
Nevis..... dollars....	69,984	54,918	22,556	55,404	38,450
Antigua..... dollars....	190,746	250,290	312,012	229,392	307,636
Montserrat..... dollars....	18,468	34,506	11,178	31,104	18,954
Dominica..... dollars....	90,882	82,134	83,592	83,592	60,264
Bermuda..... dollars....	381,996	384,912	293,644	332,910	302,292
GRAND TOTAL IMPORTS. dollars....	22,973,913	22,849,006	23,958,933	23,491,764	23,620,620

* For the year 1877 cottons only are given; for the year 1878 cottons and linens; for subsequent years
† Details of imports are given only for Jamaica, Barbadoes, and Trinidad.

BRITISH WEST INDIES—Continued.

bullion and specie included—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
4,669,831	2,641,153	3,693,793	2,454,908	4,773,518	3,632,125	3,306,896	3,258,098
226,962	129,704	179,304	119,070	231,822	176,418	160,866	153,090
1,995,188	2,004,312	2,098,739	2,104,823	2,162,540	2,163,670	2,192,103	1,815,183
5,359,282	4,973,714	5,689,777	5,439,375	5,651,534	5,614,962	5,619,875	4,328,753
902,502	1,524,582	1,794,312	1,626,156	1,590,678	1,544,994	1,570,752	1,146,474
6,205,456	.....	7,048,940	6,396,336	5,875,600	5,845,250	8,214,015	8,309,750
271,188	295,002	267,786	262,926	255,150	274,104	213,470	287,712
78,681	80,021	76,184	94,078	83,097	92,496	92,862	107,211
515,046	467,046	552,096	644,923	612,880	668,736	680,760	704,214
522,450	571,050	653,670	705,186	565,704	629,856	845,154	568,134
193,914	230,864	220,158	203,148	248,346	246,888	250,290	178,848
12,383,784	13,469,052	12,306,636	16,504,781	11,545,550	13,074,757	12,346,333	9,367,500
263,896	403,866	365,472	403,380	278,478	322,704	308,124	219,186
3,099,719	3,085,036	4,168,806	2,707,550	2,832,988	2,759,320	3,028,996	5,423,700
237,168	220,644	288,684	210,924	259,524	256,608	221,616	289,170
16,749,041	15,899,319	18,726,561	18,955,942	20,722,300	21,589,500	19,742,708	21,891,978
580,770	659,998	758,180	471,906	526,338	548,208	499,636	553,534
3,356,856	4,009,927	4,000,504	3,322,966	3,500,483	3,737,165	4,234,240	3,490,034
6,844,392	8,382,479	8,900,842	7,851,514	7,837,061	8,229,263	8,903,048	7,393,586
2,396,417	2,422,618	2,678,754	2,970,374	3,825,943	4,713,024	6,084,560	8,400,907
9,240,800	10,803,097	11,579,596	10,821,888	11,663,004	12,942,287	14,987,608	10,893,583
7,254,619	6,548,072	7,169,472	6,768,376	6,424,726	7,736,926	7,527,012	7,079,105
5,539,282	4,973,714	5,689,777	5,439,375	5,651,534	5,614,962	5,619,875	4,328,753
9,240,800	10,803,097	11,579,596	10,821,888	11,663,004	12,942,287	14,987,608	10,893,583
190,026	201,690	188,568	172,042	215,298	260,982	181,278	243,486
9,720	12,636	10,206	17,496	16,038	15,066	16,038	18,122
195,858	210,438	218,214	204,606	271,188	392,302	315,414	203,634
330,480	391,716	344,088	301,320	435,456	370,332	305,694	228,420
278,964	409,212	327,078	388,800	385,884	337,284	358,668	307,638
72,900	53,946	82,036	160,866	118,584	121,500	62,604	79,218
417,474	446,634	375,192	301,230	417,960	488,916	495,720	313,956
38,880	51,030	53,946	51,516	84,078	Entered with Saint Christopher.		
810,068	406,290	402,894	364,014	397,348			
34,992	22,356	33,048	26,244	39,852	62,208	39,366	33,534
11,178	96,228	127,332	124,902	163,782	150,174	102,060	91,854
232,482	277,500	280,982	280,628	337,284	300,974	367,584	329,994
24,207,732	24,900,571	26,812,429	25,523,303	26,622,016	29,213,717	30,750,787	24,446,159

all textiles, wearing apparel, and haberdashery are included.

BRITISH WEST INDIES—Continued.

Quantities and value of exports,

Articles.	1873.	1874.	1875.	1876.	1877.
<i>Jamaica.</i>					
Coffee..... { pounds	7,199,144	10,351,570	7,136,327	8,707,552	9,532,887
{ dollars	1,040,526	1,643,652	1,064,626	1,312,686	1,312,686
Fruit:					
Bananas..... { dollars	14,094	31,104	26,730	64,638	79,218
Oranges..... { number	2,501,550	4,476,780	4,675,820	9,764,972	8,238,940
{ dollars	7,776	16,524	16,038	33,048	28,188
Ginger..... { pounds	815,659	1,181,789	1,490,845	1,603,784	1,067,879
{ dollars	70,956	102,546	129,276	140,485	96,714
Pimento..... { pounds	6,024,551	5,761,273	6,440,049	4,474,700	6,760,693
{ dollars	177,876	174,900	195,374	194,400	329,999
Rum..... { gallons	1,990,280	2,362,492	2,563,080	.....	2,467,890
{ dollars	1,172,718	1,428,354	1,559,088	1,614,078	1,505,142
Sugar, raw..... { hogsheads	28,428	28,398	27,847	29,074	80,569
{ dollars	2,348,838	2,346,408	2,208,384	2,005,722	2,575,800
Wood, logwood..... { tons	50,411	62,803	80,912	74,9-2	46,756
Wood, logwood..... { dollars	503,982	716,850	Not stated	1,451,196	821,826
All other articles..... { dollars	621,647	548,111	1,663,241	545,540	339,558
TOTAL FOR JAMAICA..... dollars.....	5,958,413	7,008,509	6,854,937	7,362,693	7,089,131
<i>Barbadoes.</i>					
Fish, dried..... { quintals	33,805	43,498	42,854	32,240	37,554
{ dollars	96,685	126,846	124,902	93,798	106,920
Flour..... { barrels	80,051	67,079	70,441	50,701	41,837
{ dollars	491,832	407,268	428,166	363,042	254,179
Meat, salted..... { pounds	2,231,091	1,523,156	1,840,359	1,485,280	1,574,641
{ dollars	180,792	128,304	109,350	118,584	127,818
Molasses..... { puncheons	21,088	28,076	39,786	24,135	31,828
{ dollars	461,214	620,940	834,108	524,980	695,952
Rice..... { pounds	2,719,864	1,187,216	2,304,766	2,155,164	2,171,407
{ dollars	60,096	28,674	55,895	52,488	52,4-8
Rum..... { gallons	14,445	16,801	2,638	3,179	3,847
{ dollars	5,846	6,318	1,004	1,176	1,499
Sugar..... { hogsheads	37,523	47,355	63,122	38,010	47,400
{ dollars	2,735,208	3,452,058	4,747,734	2,771,172	3,453,180
All other articles..... { dollars	937,875	767,720	836,304	761,178	681,907
TOTAL FOR BARBADOES..... dollars.....	4,977,048	5,544,128	7,168,063	4,686,318	5,335,852
<i>Trinidad.</i>					
Cocoa..... { pounds	9,238,141	11,191,431	7,638,790	10,742,123	11,133,303
{ dollars	1,033,922	1,035,666	775,856	1,261,170	1,367,118
Molasses..... { gallons	1,624,998	1,697,631	2,423,049	2,004,508	1,464,472
{ dollars	180,792	205,092	343,602	243,486	237,168
Rum..... { gallons	22,860	39,761	58,968	18,167	1,182
{ dollars	13,122	24,300	28,188	12,630	2,381
Sugar, raw..... { pounds	133,489,078	99,730,559	129,884,972	114,068,384	102,713,034
{ dollars	4,732,668	3,250,288	3,944,862	3,104,082	4,492,564
All other articles..... { dollars	1,545,853	1,358,766	1,805,889	1,683,146	1,950,124
Total merchandise..... dollars.....	7,505,857	5,874,092	6,898,197	6,304,520	8,049,375
Bullion and specie..... dollars.....	919,512	969,496	999,702	1,049,448	2,125,764
TOTAL FOR TRINIDAD..... dollars.....	8,425,369	6,863,588	7,897,899	7,353,968	10,175,139
RECAPITULATION.					
Jamaica..... dollars.....	5,958,013	7,008,509	6,854,937	7,362,693	7,089,131
Barbadoes..... dollars.....	4,977,048	5,544,128	7,168,063	4,686,318	5,335,852
Trinidad..... dollars.....	8,425,369	6,863,588	7,897,899	7,353,968	10,175,139
Bahamas..... dollars.....	701,076	632,772	629,254	519,048	538,974
Turk's Island..... dollars.....	116,640	118,098	128,304	153,570	107,892
Saint Lucia..... dollars.....	730,510	713,934	775,170	858,382	868,4-2
Saint Vincent..... dollars.....	1,020,114	974,438	1,028,930	890,388	852,444
Grenada..... dollars.....	716,852	772,254	833,518	867,986	709,074
Tobago..... dollars.....	220,138	220,644	447,120	387,342	315,826
Virgin Islands..... dollars.....	27,702	33,334	28,188	23,328	23,328
Saint Christopher..... dollars.....	874,800	710,046	682,430	738,046	716,392
Nevis..... dollars.....	404,352	203,058	281,301	265,4-2	241,056
Antigua..... dollars.....	830,088	518,562	1,210,626	605,9-2	1,022,544
Montserrat..... dollars.....	178,848	160,866	163,266	136,566	156,006
Dominica..... dollars.....	301,320	329,022	345,060	373,734	377,622
Bermuda..... dollars.....	315,414	396,576	297,918	362,030	364,400
GRAND TOTAL EXPORTS..... dollars.....	25,798,304	25,290,029	28,671,633	26,096,249	28,913,162

BRITISH WEST INDIES—Continued.

bullion, and specie included.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
9, 572, 914 1, 332, 612	10, 533, 960 1, 211, 112	10, 188, 894 1, 237, 842	9, 365, 282 1, 124, 604	7, 418, 648 648, 810	9, 445, 100 780, 516	5, 415, 994 480, 168	9, 032, 606 764, 478
152, 118 10, 346, 550 84, 992 969, 603 84, 078 6, 195, 109 366, 444 2, 173, 800 1, 036, 638 26, 066 1, 842, 426 35, 157 499, 122 535, 596	150, 894 9, 424, 757 32, 078 769, 639 88, 452 5, 861, 170 385, 884 2, 155, 160 958, 878 20, 151 2, 088, 846 55, 885 874, 800 797, 858	177, 596 14, 609, 480 56, 862 889, 847 107, 892 10, 215, 477 707, 616 2, 230, 320 982, 206 32, 118 2, 419, 308 40, 325 776, 628 887, 128	110, 808 23, 026, 209 97, 696 779, 801 75, 816 6, 058, 164 416, 388 1, 574, 240 847, 584 21, 056 1, 637, 334 43, 555 63, 716 783, 031	432, 054 35, 456, 978 163, 782 664, 412 58, 320 8, 514, 117 548, 208 2, 72, 9040 1, 436, 616 38, 392 2, 985, 498 30, 818 446, 634 806, 100	455, 868 34, 152, 638 182, 736 686, 889 79, 218 9, 551, 632 499, 122 2, 008, 565 2, 082, 024 39, 785 2, 680, 776 29, 770 433, 998 980, 918	493, 720 41, 639, 590 283, 388 1, 359, 332 102, 546 12, 372, 752 451, 008 2, 036, 030 1, 061, 836 65, 904, 536 2, 082, 024 44, 927 855, 128 1, 062, 419	631, 314 22, 614, 390 154, 062 1, 379, 971 107, 892 10, 680, 364 235, 282 2, 060, 471 1, 137, 726 55, 968, 416 1, 495, 908 56, 608 742, 608 1, 551, 313
5, 884, 026	6, 597, 800	7, 353, 078	5, 727, 967	7, 528, 022	7, 141, 512	7, 212, 187	6, 870, 689
29, 462 86, 022 57, 896 948, 462 1, 648, 118 123, 650 31, 078 2, 679, 428 2, 317, 622 56, 376 5, 061 1, 847 48, 510 3, 502, 603 717, 222	32, 110 91, 798 45, 867 472, 878 1, 606, 328 130, 248 33, 974 743, 094 1, 510, 847 87, 422 8, 631 8, 159 57, 306 4, 177, 856 461, 053	42, 491 123, 930 83, 686 204, 120 1, 538, 220 124, 416 31, 830 695, 952 3, 217, 119 78, 246 5, 623 1, 993 54, 269 3, 956, 040 483, 964	49, 667 144, 828 35, 593 216, 270 1, 087, 250 87, 966 33, 521 732, 888 3, 215, 515 76, 246 1, 414 535 52, 236 3, 807, 810 478, 611	92, 380 94, 284 40, 085 243, 406 1, 135, 986 91, 854 36, 805 794, 124 1, 098, 455 48, 600 2, 010 729 53, 735 3, 917, 160 609, 257	19, 754 57, 834 36, 568 222, 102 1, 084, 995 87, 966 33, 089 723, 654 4, 130, 066 100, 116 2, 585 923 59, 179 3, 658, 122 699, 794	23, 889 69, 498 42, 163 256, 122 1, 771, 263 90, 930 35, 679 780, 516 4, 988, 687 120, 042 3, 275 1, 215 58, 074 4, 233, 546 849, 183	30, 812 116, 154 33, 491 203, 148 809, 039 40, 086 38, 258 591, 462 7, 309, 333 148, 230 3, 984 1, 452 63, 196 3, 071, 034 698, 362
5, 241, 073	6, 119, 508	5, 668, 651	5, 542, 154	5, 799, 414	5, 545, 511	6, 409, 752	4, 878, 928
10, 902, 963 1, 633, 446 2, 185, 945 265, 356 7, 244 5, 346 116, 588, 721 3, 502, 603 1, 477, 926	13, 376, 269 2, 883, 838 1, 777, 540 190, 998 81, 454 41, 310 149, 674, 017 4, 045, 950 1, 942, 267	11, 715, 398 1, 564, 434 1, 599, 286 215, 784 31, 118 13, 608 119, 581, 934 4, 170, 866 1, 963, 984	11, 478, 737 1, 409, 888 1, 417, 550 227, 934 935 505 97, 682, 267 3, 344, 652 2, 126, 236	12, 240, 491 1, 753, 002 2, 067, 059 370, 332 15, 285 7, 290 123, 981, 724 4, 253, 958 2, 020, 462	12, 630, 348 1, 990, 656 1, 992, 176 360, 126 17, 916 8, 748 122, 070, 784 4, 306, 982 1, 684, 076	14, 669, 356 2, 103, 884 2, 245, 650 267, 300 60, 507 32, 562 136, 552, 804 3, 121, 578 1, 767, 343	14, 904, 830 2, 050, 920 2, 416, 761 222, 558 78, 899 88, 394 130, 841, 698 3, 327, 642 1, 841, 809
0, 884, 676 2, 053, 350	8, 604, 363 2, 402, 298	7, 928, 176 2, 093, 412	7, 109, 213 3, 092, 418	8, 405, 044 3, 511, 836	8, 550, 538 4, 506, 678	7, 892, 677 5, 776, 566	7, 480, 823 3, 437, 964
8, 988, 026	11, 006, 661	10, 621, 588	10, 201, 631	11, 916, 880	13, 057, 216	13, 169, 273	10, 918, 787
5, 884, 026 5, 241, 073 8, 928, 026 603, 522 120, 734 736, 290 785, 376 725, 113 328, 350 30, 618 964, 150 148, 716 977, 832 146, 773 411, 642 318, 330	6, 597, 800 6, 119, 508 11, 006, 661 566, 306 86, 994 1, 024, 974 779, 058 728, 084 342, 630 25, 758 856, 332 368, 874 1, 298, 892 173, 502 358, 182 337, 770	7, 353, 078 5, 668, 651 10, 621, 588 590, 004 134, 622 946, 242 772, 254 334, 462 377, 136 24, 768 903, 960 180, 792 1, 281, 096 141, 136 314, 442 408, 240	5, 727, 967 5, 542, 154 10, 201, 631 554, 526 124, 416 818, 910 687, 176 944, 298 406, 296 25, 273 1, 035, 666 188, 082 867, 996 171, 072 268, 272 427, 194	7, 528, 022 5, 799, 414 11, 916, 880 783, 918 121, 014 1, 082, 322 742, 608 895, 212 234, 252 24, 300 1, 270, 800 410, 670 1, 816, 068 185, 166 318, 330 530, 712	7, 141, 512 5, 545, 511 13, 057, 216 717, 836 160, 880 1, 089, 068 810, 648 940, 410 233, 280 24, 300 1, 225, 692 869, 108 153, 690 317, 638 442, 746	7, 212, 187 6, 409, 752 13, 169, 273 594, 878 165, 240 709, 074 567, 648 1, 035, 666 202, 176 17, 010 998, 730 869, 108 156, 006 229, 878 430, 596	6, 870, 689 4, 878, 928 10, 918, 787 876, 258 150, 174 569, 518 633, 248 866, 052 186, 624 23, 874 967, 696 772, 740 79, 218 255, 150 411, 156
28, 480, 569	30, 069, 025	30, 552, 489	27, 990, 929	33, 156, 798	32, 888, 238	32, 766, 722	28, 480, 042

* Pounds.

CEYLON.

Value of imports, including bullion and

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom	7,460,100	7,285,140	6,887,106	7,960,120	7,832,862
India	17,283,618	16,056,468	16,003,008	15,873,242	19,867,586
Maldivé Islands	197,802	172,044	160,380	182,250	161,352
Hong-Kong	174,960	66,096	106,864	664,848	75,230
Australasia	490,160	633,800	960,748	499,122	374,706
France	97,696	101,574	149,202	234,738	114,210
French Possessions	961,440	1,330,668	1,748,142	1,593,594	550,638
Austria					
United States					
All other	396,614	287,748	16,176	7,605	129,125
TOTAL IMPORTS	27,091,380	25,933,538	26,053,626	27,035,519	28,605,809

Value of exports, including bullion

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom	19,712,646	14,527,498	18,025,740	14,479,378	20,661,318
India	3,390,336	4,233,546	3,366,448	2,492,882	2,829,006
Maldivé Islands	76,788	116,640	114,210	157,464	96,228
Mauritius	36,450	178,362	142,884	364	148,230
Hong-Kong	12,150	3,518	30,618	56,802	12,150
Australasia	319,302	296,254	224,046	320,760	374,220
France	449,064	753,786	684,784	950,616	512,244
French Possessions	153,662	146,286	116,154	104,004	83,592
Austria	1,005,048	568,620	2,135,970	1,643,652	2,061,612
Suez	55,890	2,901		685	1,137
United States	833,004	384,912	813,078	398,034	463,156
All other	392,072	154,592	450,561	311,931	605,192
TOTAL EXPORTS	26,436,412	21,356,915	26,124,493	21,916,632	27,848,087

CEYLON.

specie, from the principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
0, 102, 480	5, 584, 626	7, 275, 906	5, 829, 570	5, 782, 428	6, 257, 250	6, 382, 638	5, 124, 440
16, 741, 728	17, 142, 192	14, 625, 684	14, 177, 592	14, 217, 930	14, 478, 202	15, 668, 862	14, 717, 052
122, 958	156, 006	178, 848	100, 128	186, 624	184, 174	184, 145	218, 700
65, 124	29, 160	16, 524	26, 730	26, 244	22, 356	14, 064	9, 234
353, 322	160, 694	157, 464	284, 310	140, 454	45, 684	26, 244	54, 432
93, 798	234, 252	202, 662	52, 002	45, 198	56, 948	82, 134	58, 020
547, 722	927, 724	1, 587, 762	693, 086	642, 492	783, 018	707, 616	180, 082
3, 305	14, 580	68, 526	111, 294	101, 088	32, 562	79, 218	67, 554
-----	-----	-----	-----	-----	19, 270	44, 887	24, 819
116, 820	193, 820	252, 137	126, 200	100, 432	128, 967	254, 251	114, 035
24, 207, 257	24, 443, 054	24, 865, 513	21, 469, 862	21, 242, 890	2, 009, 331	23, 384, 069	20, 563, 418

and specie, to principal countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
15, 139, 386	17, 668, 530	15, 795, 972	9, 810, 882	9, 810, 808	9, 151, 380	9, 004, 608	9, 506, 160
3, 454, 488	2, 466, 936	2, 858, 652	2, 509, 704	2, 638, 604	2, 555, 888	2, 151, 030	3, 154, 626
114, 210	150, 174	178, 848	160, 866	167, 184	154, 548	156, 006	151, 632
29, 646	157, 464	84, 506	47, 142	28, 188	13, 608	18, 468	44, 226
22, 306	19, 440	18, 954	13, 122	5, 346	8, 748	3, 377	10, 206
258, 066	257, 094	379, 566	443, 718	380, 612	375, 192	370, 818	467, 582
694, 980	621, 108	784, 104	539, 460	475, 794	979, 290	971, 028	854, 388
95, 256	108, 864	196, 830	172, 044	148, 232	74, 844	81, 163	56, 862
1, 071, 630	1, 444, 392	1, 398, 222	1, 093, 014	1, 483, 294	924, 372	644, 922	611, 388
-----	53	1, 161	2, 911	4, 880	4, 833	11, 178	6, 804
400, 564	748, 926	911, 796	1, 188, 212	914, 166	1, 024, 488	1, 068, 714	863, 136
288, 814	467, 178	490, 553	557, 869	991, 023	921, 483	882, 410	576, 396
2, 599, 346	24, 110, 159	23, 449, 104	16, 488, 444	16, 578, 111	16, 188, 174	15, 363, 783	16, 303, 476

CEYLON—Continued.

Quantities and value of the principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
Coal and coke.....	{ tons 98,720 dollars... 1,006,992	{ 98,907 1,076,970	{ 98,602 924,372	{ 71,681 642,006	{ 97,444 880,146
Cotton, manufactures.....	{ packages... 24,814 pieces..... 1,996,721 dollars.... 4,208,786	{ 24,024 2,061,880 3,824,334	{ 1,855 1,882,085 3,558,006	{ 1,131 2,879,076 4,839,960	{ 673 1,778,163 3,272,238
Cotton twist.....	dollars... 222,588	130,248	68,040	91,854	41,712
Cutlery and hardware.....	dollars... 203,092	204,064	241,056	180,568	291,516
Curry stuffs.....	dollars... 246,402	246,596	204,120	232,308	300,684
Fish, salted and dried.....	{ pounds... 12,114,928 dollars.... 525,822	{ 11,148,352 449,560	{ 9,748,776 396,576	{ 9,810,876 399,006	{ 10,444,000 421,704
Grain:					
Paddy.....	{ bushels... 1,035,178 dollars.... 774,758	{ 987,136 675,054	{ 1,055,126 721,224	{ 736,848 503,496	{ 801,510 547,722
Rice.....	{ bushels... 5,708,142 dollars.... 9,015,786	{ 5,712,175 8,460,606	{ 5,296,192 7,812,936	{ 5,865,044 8,070,720	{ 6,939,150 10,274,040
Other, and flour.....	dollars... 431,568	451,494	509,814	486,000	700,326
Harbours and millinery.....	dollars... 459,756	423,792	402,894	420,876	508,842
Live stock, cattle.....	{ number... 14,749 dollars.... 400,950	{ 12,511 819,788	{ 15,392 383,398	{ 17,831 117,474	{ 28,958 467,046
Poonac (cocoanut cake).....	{ pounds... 20,244,224 dollars.... 351,878	{ 20,855,184 389,228	{ 20,874,592 331,452	{ 19,324,256 814,442	{ 21,322,232 347,004
All other articles.....	dollars... 4,767,174	4,040,628	4,806,943	5,650,519	6,843,215
Total merchandise.....	dollars... 22,597,052	21,253,358	20,423,830	22,358,255	24,905,405
Bullion and specie.....	dollars... 4,491,828	4,080,180	5,630,716	4,677,264	3,700,404
TOTAL IMPORTS.....	dollars... 27,091,380	25,933,538	26,053,626	27,035,519	28,605,809

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Areca nuts.....	{ pounds... 16,406,208 dollars.... 424,558	{ 14,540,512 528,282	{ 10,591,504 409,698	{ 10,170,944 403,380	{ 6,843,304 250,291
Cinchona bark.....	dollars... 15,066	11,664	8,282	6,804	40,386
Cinnamon.....	{ pounds... 1,160,754 dollars.... 281,880	{ 1,132,191 258,066	{ 1,407,010 320,274	{ 1,326,901 369,066	{ 1,443,871 329,022
Coffee:					
Plantation.....	{ pounds... 92,989,232 dollars.... 18,157,932	{ 71,230,046 13,064,166	{ 91,100,912 18,630,208	{ 65,066,693 14,164,956	{ 100,411,805 21,241,116
Native.....	{ pounds... 13,672,624 dollars.... 2,373,138	{ 10,866,240 1,657,746	{ 12,002,460 2,099,520	{ 9,025,620 1,408,692	{ 9,210,472 1,537,218
Cotton manufactures.....	{ packages... 9,313 pieces... 482,389 dollars.... 1,443,006	{ 1,434,186	{ 232 565,113 1,586,790	{ 301 436,814 1,253,890	{ 224 295,982 835,920
Cocoanut oil.....	{ pounds... 12,753,064 dollars.... 689,148	{ 16,248,720 823,284	{ 13,868,288 703,270	{ 23,852,752 1,498,682	{ 14,891,744 733,256
Plumbago.....	{ pounds... 10,807,552 dollars.... 718,784	{ 10,793,056 656,100	{ 12,622,876 501,066	{ 13,144,432 534,680	{ 10,440,704 441,268
Spirits, arrack.....	{ gallons... 124,424 dollars.... 73,872	{ 173,468 80,676	{ 80,709 32,562	{ 118,896 69,498	{ 167,738 110,550
Tea.....	dollars... 360	3,970	8,339	698	1,611
Tobacco, unmanufactured.....	dollars... 451,080	471,420	349,820	354,780	373,248
All other articles.....	dollars... 1,500,888	1,453,675	1,124,250	1,198,706	1,803,091
Total merchandise.....	dollars... 26,137,522	20,443,235	25,668,139	20,973,792	27,726,587
Specie and bullion.....	dollars... 298,890	913,680	456,354	942,840	121,500
Domestic products.....	dollars... ..	.....	.....	10,178,121	25,932,450
Foreign products.....	dollars... ..	.....	.....	2,738,508	1,915,637
TOTAL EXPORTS.....	dollars... 26,436,412	21,356,915	26,124,493	21,916,632	27,848,087

CEYLON—Continued.

imported, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
96, 449	79, 477	90, 819	116, 885	188, 411	219, 387	215, 644	225, 240
923, 830	737, 748	1, 004, 562	997, 272	1, 594, 596	1, 848, 258	1, 842, 858	1, 953, 664
414	474	742	520	761	534	1, 054	809
1, 291, 217	1, 713, 795	1, 061, 429	1, 619, 489	1, 630, 772	1, 681, 308	2, 180, 264	1, 304, 851
2, 251, 638	2, 558, 790	3, 211, 418	2, 336, 668	2, 000, 154	2, 243, 862	2, 539, 150	1, 503, 198
85, 964	61, 236	86, 022	50, 058	79, 218	80, 190	116, 640	55, 890
178, 848	158, 436	143, 370	108, 378	101, 088	103, 518	106, 920	105, 948
342, 770	268, 272	271, 188	226, 476	198, 858	209, 952	340, 068	279, 936
9, 455, 040	8, 324, 064	10, 124, 464	10, 239, 712	10, 408, 192	13, 482, 356	11, 381, 216	12, 239, 008
384, 912	338, 742	411, 642	416, 502	422, 820	518, 094	463, 158	579, 112
799, 161	1, 458, 093	1, 014, 958	1, 122, 433	805, 695	543, 751	683, 785	1, 041, 576
546, 264	966, 300	663, 522	766, 908	550, 638	371, 700	467, 532	711, 990
6, 668, 969	5, 954, 935	6, 004, 999	6, 030, 820	5, 757, 024	5, 746, 184	5, 490, 768	5, 760, 675
9, 875, 520	8, 737, 884	9, 025, 506	8, 930, 250	8, 524, 920	8, 503, 888	8, 130, 780	8, 733, 906
562, 788	547, 722	570, 564	545, 292	512, 244	531, 610	567, 648	633, 258
399, 492	381, 510	481, 026	396, 090	360, 612	349, 920	362, 550	306, 180
17, 492	27, 463	11, 872	8, 683	9, 537	11, 960	13, 461	10, 080
254, 664	495, 720	340, 798	176, 004	164, 268	276, 534	312, 012	228, 906
23, 586, 525	19, 856, 168	17, 906, 808	19, 197, 584	18, 891, 936	29, 688, 416	17, 426, 976	16, 884, 000
363, 940	328, 190	293, 058	312, 498	306, 666	336, 798	283, 338	200, 010
5, 314, 839	4, 577, 614	5, 051, 063	4, 391, 822	4, 148, 644	4, 164, 414	4, 279, 713	3, 220, 428
21, 457, 469	20, 183, 264	21, 560, 989	19, 655, 138	19, 024, 702	19, 594, 455	19, 812, 961	18, 574, 426
2, 749, 788	4, 259, 790	2, 774, 574	1, 814, 724	2, 215, 188	2, 414, 876	3, 571, 128	1, 978, 992
24, 207, 257	24, 443, 054	24, 365, 513	21, 460, 862	21, 242, 890	22, 009, 331	23, 384, 089	20, 563, 418

exports, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
11, 399, 024	12, 926, 562	17, 714, 704	17, 585, 680	16, 167, 760	12, 988, 416	8, 758, 512	14, 487, 648
451, 494	462, 568	609, 444	525, 852	456, 640	414, 558	325, 020	590, 004
78, 246	226, 196	577, 868	576, 396	4, 753, 974	2, 047, 518	1, 891, 613	1, 800, 836
1, 665, 481	1, 314, 292	1, 609, 548	1, 819, 837	1, 992, 604	1, 226, 431	1, 238, 605	2, 145, 257
379, 506	299, 370	366, 444	414, 568	453, 924	509, 328	509, 814	489, 688
65, 734, 704	81, 287, 520	68, 526, 304	45, 608, 869	48, 070, 736	32, 578, 448	82, 201, 120	33, 044, 256
14, 708, 818	17, 515, 440	14, 485, 922	9, 277, 254	7, 822, 170	5, 063, 706	5, 240, 052	5, 377, 104
5, 238, 244	6, 094, 368	5, 012, 330	3, 334, 128	3, 975, 888	1, 660, 176	1, 331, 292	2, 808, 432
800, 442	842, 724	683, 036	461, 214	371, 799	202, 662	185, 594	234, 738
178	171	240	135	186	350	225	82
355, 961	250, 389	294, 978	172, 245	158, 823	112, 475	71, 518	57, 773
724, 578	673, 506	641, 034	401, 700	380, 052	200, 814	164, 268	102, 548
19, 647, 376	24, 450, 508	39, 470, 610	22, 575, 392	23, 626, 648	30, 018, 784	43, 002, 960	29, 700, 496
994, 842	1, 238, 324	1, 998, 432	1, 143, 072	1, 106, 046	1, 975, 104	2, 170, 794	1, 503, 684
9, 678, 008	16, 190, 440	23, 042, 656	29, 109, 808	29, 138, 592	29, 430, 576	20, 431, 712	21, 996, 088
385, 398	740, 178	937, 494	1, 184, 382	1, 185, 354	1, 105, 018	831, 060	894, 726
128, 605	161, 033	147, 709	116, 424	148, 351	129, 827	140, 742	139, 912
45, 198	75, 330	62, 208	63, 060	99, 144	101, 574	118, 098	110, 294
9, 528	54, 518	97, 680	147, 258	209, 730	418, 446	654, 156	1, 296, 162
364, 426	91, 102	480, 168	424, 278	537, 030	424, 764	580, 770	597, 294
1, 858, 810	1, 440, 860	2, 015, 990	1, 242, 624	1, 330, 824	2, 337, 365	2, 032, 193	2, 616, 166
21, 031, 344	23, 690, 255	22, 875, 232	15, 022, 254	15, 850, 887	15, 557, 346	14, 679, 031	16, 623, 442
538, 092	419, 904	73, 872	566, 190	721, 224	630, 828	683, 802	679, 914
19, 504, 682	23, 618, 868	21, 785, 732	15, 329, 718	.....	.....	.....	.....
2, 064, 664	1, 491, 791	1, 263, 372	1, 158, 726	.....	.....	.....	.....
21, 569, 346	24, 110, 169	23, 049, 104	16, 488, 444	16, 578, 111	16, 188, 174	15, 303, 733	16, 303, 356

BRITISH INDIA.

Value of imports, merchandise, and

Countries.	1873.	1874.	1875.	1876.	1877.
Continent of Europe:	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom.....	132,379,110	144,622,140	170,885,282	167,781,204	192,236,814
Austria.....	615,276	451,980	466,580	573,480	578,340
Belgium.....	869	63	111	1,054	8,019
France.....	1,838,538	1,756,320	2,007,180	3,296,060	2,677,120
Germany.....	230,850	113,724	113,724	114,210	43,740
Holland.....	57,348	68,526	58,320	87,480	35,478
Italy.....	713,934	1,644,412	1,359,828	2,560,248	6,637,688
Malta.....	2,546	3,222	8,748	8,748	14,580
Gibraltar.....	8,748	15,066	25,272	51,510	69,498
All other.....	54,131	33,826	35,546	50,975	21,199
Total from Europe.....	135,901,350	148,709,279	174,460,571	174,524,085	202,522,476
Continent of Africa:					
Cape of Good Hope.....	3d, 936	17,496	87,480	9,720	14,580
Mozambique.....	(*)	(*)	(*)	(*)	(*)
Zanzibar.....	1,242,702	883,062	620,622	1,232,010	1,467,239
Egypt.....	121,500	140,940	83,106	637,146	1,293,732
Mauritius.....	1,458,000	2,160,550	2,900,934	3,669,780	1,282,564
Réunion.....	345,060	5,686	52,488	48,114	48,114
All other.....			2,464	22,439	105,875
Total from Africa.....	3,204,198	3,197,734	3,747,094	5,619,209	4,212,094
Continent of America:					
United States.....	303,200	477,738	940,410	979,290	837,964
Canada, South America, &c.....	Included with the United States.			26,730	47,142
West Indies.....	924	184	77	1,944	2,221
Total from America.....	304,124	477,922	940,487	1,007,064	887,227
Continent of Asia:					
Aden.....	697,896	818,324	683,316	917,566	869,454
Arabia (Red Sea ports).....	2,072,304	2,023,704	1,928,504	3,300,912	3,404,916
Ceylon.....	4,386,636	4,371,570	4,522,230	4,597,074	4,544,100
China.....	5,732,968	5,853,870		262,244	751,108
Hong-Kong.....	5,821,196	9,409,757	14,369,532	12,784,428	9,604,624
Japan.....	126,760	252	54,918	26,244	9,234
Java.....	409	418	15	7,776	4,044
Maldivé Islands.....	246,402	198,288	143,856	126,360	106,677
Mekran and Sommeanee.....		138,996	151,632	231,336	275,076
Perzia (Gulf).....	4,252,986	4,120,308	4,471,006	1,686,420	1,947,402
Siam.....	73,872	106,434	108,518	104,976	104,490
Straits Settlements.....	3,725,676	4,861,458	5,215,206	5,207,490	5,077,240
Sumatra.....	121,500	107,406	18,038	92,134	117,126
Turkey in Asia.....	1,701	13,122	1,623	1,454,598	1,251,450
All other.....		4,218	6,206	82	93,210
Total from Asia.....	27,260,306	32,028,625	31,665,690	30,799,642	28,160,209
Australasia.....	2,214,416	1,679,130	1,135,296	1,671,374	1,500,782
Not otherwise designated.....	18,171,286	10,423,239	12,655,572	1,151,898	258,217
TOTAL IMPORTS.....	177,055,680	192,515,929	215,004,710	214,774,092	237,541,095
Imported via the Suez Canal.....	}	Not stated.	}	142,071,603	170,894,700
Imported via other routes.....				63,457,035	56,658,358
Government stores (included in fore-going).....		10,650,204	7,663,248	8,645,454	10,077,907

* Included with Zanzibar.

BRITISH INDIA.

treasure, from the several countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
229,382,766	161,065,886	186,819,372	232,982,082	220,862,192	234,286,992	233,755,006	256,940,910
583,200	580,920	758,160	2,070,360	1,739,880	2,988,900	3,149,280	8,837,456
583	1,298	88	4,617	11,178	381,240	856,832	1,201,392
2,779,920	2,301,560	2,857,090	3,888,000	3,688,740	2,604,960	4,174,740	3,344,632
123,930	250,776	323,218	832,910	380,032	414,204	562,020	451,008
7,290	108,878	76,788	92,840	7,290	80,910	22,812	5,832
2,113,128	1,900,980	3,816,558	7,658,874	4,455,162	9,847,818	3,801,868	2,621,250
20,412	26,780	40,836	23,814	22,356	57,848	95,742	54,432
60,264	66,582	61,236	50,490	41,810	41,810	51,030	46,656
9,958	6,501	15,323	234,788	215,170	83,490	16,407	35,575
235,061,451	166,200,686	194,767,721	247,838,225	231,423,230	250,626,172	266,606,187	268,539,163
96,714	19,440	17,982	38,824	23,814	23,328	17,010	11,664
(*)	879,062	407,248	427,194	468,990	406,296	465,588	344,088
1,248,534	636,860	1,360,900	1,073,820	1,297,620	1,889,960	1,262,628	1,445,850
1,658,718	1,100,784	1,431,270	1,631,968	1,661,148	1,419,120	1,917,756	1,968,866
3,132,278	6,430,984	4,411,422	6,371,480	4,094,274	4,304,016	5,736,868	8,181,324
62,208	2,850	203,634	3,475	4,282	2,260	12,150	45,684
39,910	33,412	89,968	25,544	64,239	133,695	56,274	40,965
6,238,803	8,801,942	7,872,864	9,571,805	8,214,367	7,682,675	7,407,774	12,052,941
1,359,842	1,695,698	2,557,818	2,385,288	2,240,946	4,540,698	2,571,426	5,870,894
3,952	806	3,878	21,364	156,978	17,496	0,804	7,290
888	24	2,430	2,600	15	2,605	3,760	2,861
1,362,782	1,696,028	2,563,620	2,409,272	2,397,939	4,560,790	2,581,996	5,680,045
1,062,322	647,352	622,566	863,130	991,926	698,882	863,136	1,281,096
3,262,146	3,229,966	3,500,172	4,750,503	4,036,716	3,556,548	2,888,776	3,164,846
3,588,080	4,172,796	5,092,199	3,601,746	3,393,046	4,264,164	3,800,426	2,658,420
4,563,224	4,778,525	5,180,171	4,991,774	3,178,368	2,943,945	4,304,386	5,426,704
14,933,628	14,815,987	21,972,091	12,985,366	18,283,806	18,982,674	15,522,840	13,616,262
53,002	197,802	1,113,436	124,942	24,300	93,312	83,106	1,029,634
87,966	2,571	865	96,714	68	753	7,776	85,050
100,116	142,396	87,966	118,098	110,822	64,152	159,854	117,126
325,620	817,844	526,824	309,582	330,966	300,848	279,936	.....
2,517,966	2,966,190	2,880,522	2,558,166	2,805,562	3,724,248	3,758,238	3,946,806
66,562	32,620	38,894	63,666	82,134	138,996	147,744	81,648
7,145,172	6,407,910	6,911,406	7,500,263	7,915,482	8,181,752	8,810,114	8,638,164
276,534	183,222	119,556	61,750	86,508	124,622	294,516	318,330
2,696,074	2,306,958	2,018,844	1,961,503	2,268,648	3,087,072	2,384,802	2,497,068
1,841	27,010	9,720	2,508	8,927	1,792	33,422	.....
40,968,770	46,312,141	50,074,723	39,889,705	43,501,799	46,123,730	42,230,072	42,859,854
1,866,911	747,429	1,222,585	1,977,826	7,577,712	9,245,178	12,038,220	8,481,586
345,466	249,411	307,033	1,076,616	619,120	126,554	191,205	399,982
285,863,742	218,006,687	256,708,004	302,267,447	293,719,276	318,567,158	331,124,454	338,218,572
205,210,098	136,519,344	172,564,992	221,355,990	209,760,750	229,228,350	246,129,968	.....
76,261,992	75,488,150	77,223,344	67,264,763	73,640,494	79,168,772	72,564,749	.....
16,391,652	5,996,184	6,919,668	13,646,394	10,309,082	10,170,036	13,396,637	.....

† Suez transit trade.

BRITISH INDIA—Continued.

Total value of exports, including foreign mer

Countries.	1873.	1874.	1875.	1876.	1877.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Continent of Europe:					
United Kingdom	137, 198, 828	139, 440, 690	135, 118, 346	137, 873, 340	142, 417, 440
Austria	5, 345, 514	4, 563, 540	6, 420, 060	6, 852, 600	6, 916, 080
Belgium	92, 826	.....	.....	665, 820	1, 778, 760
France	12, 990, 780	15, 231, 240	21, 602, 140	22, 340, 580	26, 423, 820
Germany	954, 990	291, 600	981, 720	680, 400	267, 140
Holland	689, 634	1, 156, 680	68, 040	870, 528	871, 800
Italy	4, 636, 920	6, 415, 200	5, 404, 320	5, 930, 640	6, 832, 600
Malta	106, 830	77, 760	140, 940	199, 200	719, 280
Russia	773, 226	447, 120	1, 402, 880	2, 408, 320	393, 680
Spain	48, 000	145, 000	.....	364, 560	97, 200
Gibraltar	186, 624	155, 034	196, 844	105, 482	93, 740
All other	106, 920	187, 343	210, 100	9, 707	259, 480
Total to Europe	163, 219, 698	163, 061, 207	171, 599, 938	174, 301, 217	187, 796, 009
Continent of Africa:					
Cape of Good Hope	258, 086	211, 896	130, 248	178, 362	232, 308
Mozambique .....	.....	.....	Included with Zanzibar.	.....	.....
Zanzibar	1, 329, 210	1, 219, 860	1, 539, 162	1, 365, 882	1, 674, 756
Egypt	35, 964	271, 188	4, 043	994, 842	2, 451, 884
Mauritius	4, 578, 606	4, 610, 682	5, 020, 806	5, 878, 656	6, 225, 174
Natal	8, 748	.....	33, 048	50, 058	66, 096
Réunion	309, 090	243, 486	362, 536	317, 844	511, 674
All other .....	.....	5, 696	8, 962	13, 523	32, 933
Total to Africa	6, 510, 690	6, 562, 808	7, 008, 885	8, 739, 167	11, 198, 323
Continent of America:					
United States	9, 943, 356	8, 870, 958	10, 191, 420	8, 643, 024	9, 212, 616
South America .....	.....	Included with the United States.	.....	903, 960	816, 612
West Indies	968, 196	1, 457, 814	391, 230	402, 186	386, 370
Total to America	10, 911, 552	10, 328, 772	10, 582, 650	9, 949, 170	10, 445, 598
Continent of Asia:					
Aden	1, 690, 308	1, 853, 604	2, 045, 648	2, 011, 348	1, 580, 472
Arabia (Red Sea ports)	1, 282, 554	1, 298, 586	1, 744, 254	3, 951, 180	2, 917, 458
Ceylon	11, 296, 584	13, 700, 000	12, 133, 962	13, 068, 940	16, 483, 662
China	32, 201, 874	1, 825, 902	(*)	6, 632, 442	8, 844, 714
Hong-Kong	27, 377, 347	54, 096, 174	57, 106, 868	49, 356, 702	56, 483, 406
Japan	2, 381	1, 230	3, 455	29, 767	86, 022
Java	437, 400	273, 172	75, 816	185, 052	83, 106
Maldivé Islands	163, 576	133, 650	144, 828	160, 128	158, 436
Mekran and Sommeanee .....	.....	137, 538	117, 126	172, 044	173, 502
Persia (Gulf ports)	6, 555, 168	6, 039, 841	6, 050, 214	3, 008, 340	3, 617, 298
Siam and Philippines	199, 260	216, 756	196, 344	126, 360	219, 672
Straits Settlements	9, 953, 706	9, 728, 982	10, 772, 676	12, 844, 008	12, 018, 434
Turkey in Asia	249, 318	216, 270	184, 680	2, 009, 610	1, 813, 752
All other	43, 740	58, 709	63, 977	252, 283	91, 416
Total to Asia	91, 443, 276	89, 580, 214	90, 641, 863	93, 817, 804	104, 566, 350
Australasia	518, 562	1, 047, 330	658, 580	1, 572, 696	1, 427, 312
TOTAL EXPORTS TO ALL COUNTRIES.	1274, 827, 372	1276, 241, 160	1281, 418, 110	1292, 380, 054	1315, 509, 742
Exports via Suez Canal	}	Not designated.	}	107, 833, 680	117, 077, 400
Exports via other routes	}		}	184, 646, 374	198, 432, 842

*Entered with Hong-Kong.

†The transit trade, for the years 1873, 1874, and 1875, through the Suez Canal, included in totals but not included in details, was as follows, respectively: \$2,214,594, \$660,829, and \$636,139. During the subsequent years this trade is included with the exports to Egypt.

BRITISH INDIA—Continued.

chandise, and treasure, to the several countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
148,762,580	137,905,080	134,902,200	151,474,809	160,723,782	173,113,200	179,743,240	163,905,854
7,124,700	6,779,700	9,039,600	10,836,360	11,843,820	12,650,580	10,893,304	11,423,374
1,064,846	5,929	578,840	1,648,100	9,579,060	10,456,720	16,570,088	15,172,920
29,280,860	19,182,420	23,630,446	31,670,140	38,886,673	35,008,920	40,694,197	30,858,318
1,608,669	966,580	1,326,780	1,067,820	3,683,880	2,511,191	2,995,704	2,787,284
1,220,580	1,292,760	1,085,180	2,072,920	2,843,100	3,201,580	1,654,344	2,288,714
9,093,060	8,130,780	10,764,900	13,566,320	15,104,880	16,466,240	17,141,602	17,017,290
296,930	176,100	714,420	2,480,420	3,431,160	3,669,300	5,022,810	2,149,092
281,680	656,100	88,880	883,520	247,860	602,640	727,056	583,696
1,050,838	298,980	554,040	1,918,980	748,440	1,477,440	1,102,784	848,556
9,720	719	87,908	21,384	263,442	1,317,916	290,376	253,692
83,932	60,020	54,767	43,509	298,060	390,720	250,141	91,868
200,744,690	175,439,768	182,787,461	218,234,262	256,651,187	250,858,447	277,102,446	256,446,648
407,263	409,122	381,024	573,892	370,382	347,490	649,783	246,084
1,443,906	397,062	581,256	1,084,752	640,548	826,200	806,274	641,520
2,808,108	1,278,608	1,537,704	2,110,698	1,682,582	2,310,444	2,646,154	1,946,112
6,092,496	1,968,712	5,046,624	7,008,606	8,338,302	10,271,610	17,510,094	13,648,624
100,602	6,794,280	5,615,730	3,853,008	4,962,326	2,890,522	4,689,646	5,166,582
483,514	103,602	102,752	242,514	855,752	316,872	452,540	458,270
13,666	929,718	739,606	1,203,336	673,342	1,038,096	973,458	961,308
	22,095	56,504	13,831	77,206	233,691	221,616	.....
11,351,560	12,273,163	14,061,200	16,060,657	17,800,340	18,226,928	23,029,563	23,006,700
9,442,922	9,908,082	15,973,362	12,723,480	13,099,644	16,246,980	15,079,068	16,858,854
937,404	1,315,248	1,289,848	1,158,624	1,017,684	1,843,790	2,127,708	1,481,814
711,018	735,318	624,906	408,866	687,204	691,578	583,200	662,418
11,091,434	11,968,648	17,888,202	14,285,970	14,804,532	18,282,348	17,790,516	19,003,086
1,626,324	1,021,644	2,391,120	8,639,654	2,498,526	2,807,136	2,689,972	4,287,920
3,838,466	4,072,680	4,488,152	5,217,696	4,829,892	4,017,276	3,810,454	3,759,210
13,708,026	18,394,014	12,963,078	11,461,750	10,010,142	9,047,862	9,520,202	13,436,928
11,989,134	10,594,470	25,659,342	20,106,806	20,269,116	15,709,464	16,672,230	15,345,450
50,176,684	40,874,778	50,796,720	52,704,270	45,985,320	48,341,448	47,489,004	44,280,322
25,077	244,944	466,045	621,043	662,418	1,127,520	1,398,708	1,861,772
150,660	13,122	91,104	102,546	160,886	235,232	233,766	233,122
163,240	204,606	133,650	189,540	149,688	182,678	305,678	150,174
204,120	273,132	317,988	285,282	290,142	292,572	310,483	.....
4,708,688	5,480,106	6,092,982	5,978,772	6,209,186	6,306,280	7,301,763	6,683,928
147,258	103,518	143,856	167,184	171,558	136,566	95,172	93,312
12,703,012	13,444,794	13,359,168	15,470,838	17,208,774	17,602,478	15,059,138	16,683,594
2,199,178	1,886,166	1,949,846	1,924,074	1,745,712	2,056,696	1,972,402	2,182,840
40,250	154,290	206,742	76,982	623,908	868,281	853,520	114,210
101,675,037	112,662,804	118,951,293	117,866,537	110,714,668	108,435,589	107,115,246	110,562,092
2,213,730	2,510,076	2,235,114	2,594,268	3,906,498	5,292,054	2,900,984	3,812,070
327,276,451	314,875,079	335,873,270	369,071,714	408,877,165	410,095,818	433,018,369	414,197,981
119,695,482	118,816,704	128,010,456	162,964,560	209,570,004	215,970,138	244,417,662	.....
207,690,969	196,058,285	207,862,814	206,767,154	193,807,161	194,125,176	188,600,707	.....

The statistics showing the distribution of exports among the several countries for the year 1885 fall short of the total to the amount of \$1,312,785.

BRITISH INDIA—Continued.

Quality and value of

Articles.	1873.	1874.	1875.	1876.	1877.
Apparel.....dollars..	2,920,860	2,779,080	3,018,200	2,988,000	2,551,500
Arms, ammunition, &c.....dollars..	869,860	869,860	408,240	369,360	315,000
Books, paper, and stationery.....dollars..	2,080,080	2,306,500	2,296,780	2,182,140	2,250,180
Coal, coke, &c.....tons	357,091	395,893	392,096	421,772	571,724
.....dollars..	2,419,794	3,506,400	5,304,800	6,236,760	4,529,520
Cotton, twist and yarn.....pounds	30,578,815	37,097,260	31,927,140	31,927,140	33,270,208
.....dollars..	12,773,538	12,776,940	15,347,880	13,583,700	13,287,240
Cotton manufactures.....dollars..	70,984,917	73,658,160	79,048,040	79,947,000	77,721,120
Drugs and medicines.....dollars..	1,532,358	1,302,480	1,419,120	1,059,480	1,068,640
Dyes.....dollars..	630,400	630,400	767,880	694,980	529,740
Fruits and vegetables.....dollars..	1,282,554	1,360,800	1,142,100	345,060	456,840
Glass and manufactures.....*sup. ft.	3,817,768	3,312,170	3,586,000	3,586,000	3,986,465
.....dollars..	1,444,892	1,618,880	1,550,340	1,701,100	1,890,800
Gums and resins.....dollars..	655,260	641,520	641,520	442,260	408,240
Hardware, cutlery, and plated ware.....dollars..	Included with metals.			2,308,500	1,992,600
Horses.....dollars..	845,080	825,620	354,040	412,100	412,100
Ivory.....dollars..	903,980	907,780	1,122,660	1,195,560	1,195,560
Jewelry and precious stones.....dollars..	1,075,518	831,060	928,260	860,220	962,280
Liquors: Malt.....gallons	1,536,096	1,435,348	1,481,698	1,143,167	1,176,922
.....dollars..	1,766,610	1,642,680	1,701,000	1,302,480	1,317,060
Spirits.....gallons	723,600	608,824	674,987	704,374	654,527
.....dollars..	2,691,954	2,376,540	2,692,440	2,930,580	2,922,920
Wines and liquors.....gallons	2,487,040	545,043	564,921	575,996	364,242
.....dollars..	2,487,040	2,313,360	2,312,320	2,532,060	1,997,460
Machinery and mill work.....dollars..	2,514,078	4,869,720	5,763,960	6,765,120	4,286,520
Metals:					
Iron.....tons	49,054	84,555	111,311	123,265	123,265
.....dollars..	3,667,636	3,868,560	6,060,420	6,925,500	7,426,080
Steel.....tons	545	1,715	4,519	5,975	5,975
.....dollars..	381,996	277,020	466,560	432,540	544,320
Brass.....tons	Included with copper.			288,140	218,700
.....dollars..				13,680	14,981
Copper.....tons	6,797	11,765	13,680	5,870,096	6,794,296
.....dollars..	2,812,968	2,493,180	4,199,040	8,252	5,319
Spelter.....tons	2,273	2,167	2,167	3,252	5,319
.....dollars..	592,434	243,000	228,420	403,380	699,840
Tin.....tons	2,086	1,658	2,074	2,074	2,051
.....dollars..	388,800	719,280	680,400	721,340	579,680
Lead.....tons	1,032	1,619	1,618	1,618	2,024
.....dollars..	310,068	164,680	247,880	306,180	354,730
Quicksilver.....pounds	143,067	160,714	524,286	217,181	217,181
.....dollars..	68,040	77,780	524,680	179,820	179,820
Unenumerated.....dollars..		597,780	704,700	204,120	208,960
Total metals.....dollars..	8,143,902	8,451,540	12,665,160	15,626,178	17,306,460
Oils.....dollars..	325,620	534,600	840,200	879,080	879,080
Paints and colors.....dollars..	530,430	665,820	986,580	762,450	762,450
Perfumery.....dollars..	160,390	179,820	204,960	204,120	204,120
Porcelain and earthenware.....dollars..	481,140	537,030	481,140	597,780	597,780
Provisions.....dollars..	1,708,290	1,812,730	1,769,040	3,470,040	3,212,460
Railway plant and railway stock.....do.	1,591,650	2,153,540	2,619,840	2,916,000	3,863,120
Salt.....tons	307,171	304,794	401,777	828,654	828,654
.....dollars..	4,027,482	4,058,100	3,674,180	3,920,880	2,094,060
Silk.....pounds	2,282,768	2,468,258	2,457,244	1,461,069	1,461,069
.....dollars..	3,107,970	3,824,820	4,242,780	3,877,700	2,196,720
Silk manufactures.....dollars..	2,724,516	2,954,838	3,450,600	3,445,740	2,638,240
Spices.....pounds	26,149,038	25,658,043	25,658,043	25,658,043	29,368,456
.....dollars..	1,051,704	733,880	869,940	1,924,560	2,104,380
Sugar.....tons	23,936	21,764	33,724	14,106	14,106
.....dollars..	2,138,186	2,716,740	2,507,760	4,354,560	1,963,440
Tea.....pounds	1,828,671	1,701,473	2,771,204	1,755,390	1,755,390
.....dollars..	1,198,476	889,330	826,200	1,205,280	650,400
Tobacco.....dollars..	343,090	340,200	340,200	340,200	460,560
Umbrellas.....dollars..	437,400	578,340	652,600	665,820	665,820
Wood, and manufactures of.....dollars..	237,550	349,920	393,660	393,660	393,660
Wool.....pounds	1,254,900	1,542,787	1,749,188	2,145,584	2,145,584
.....dollars..	189,540	208,980	223,580	257,580	257,580
Wool manufactures.....dollars..	3,496,770	3,251,540	2,711,880	4,228,200	3,944,320
All other articles.....dollars..	19,747,438	5,742,010	4,379,622	8,215,158	8,769,422
Total merchandise.....dollars..	154,910,677	153,714,510	168,375,672	180,367,236	171,884,592
Imports of treasure.....dollars..	22,145,003	28,151,550	39,565,790	25,761,402	55,579,440
Imports of government stores.....dollars..		7,650,204	7,663,248	8,645,454	10,077,967
GRAND TOTAL IMPORTS.....dollars..		192,516,264	215,604,710	214,774,092	237,541,005

* Sheet and plate only.

BRITISH INDIA—Continued.

principal articles imported.

1878.	1879.	1880.	1881.	1882.	1788.	1884.	1885.
2,711,880	2,483,400	2,580,060	2,197,680	2,115,260	2,742,200	4,223,340	4,068,924
340,260	247,860	288,740	201,820	364,500	888,800	466,560	.....
2,760,480	2,488,820	2,546,640	2,528,860	2,506,400	2,037,500	3,467,420	2,214,404
661,864	532,556	646,721	752,145	700,886	691,706	779,194	885,840
4,868,880	4,320,540	5,780,680	6,026,400	4,967,200	4,957,200	5,365,440	6,158,192
36,184,125	33,145,651	33,112,952	45,870,575	40,751,751	44,859,175	45,878,956	.....
13,851,000	13,510,800	13,340,700	17,982,000	15,658,920	16,417,080	16,844,760	16,331,544
84,184,920	68,657,320	82,211,760	111,347,460	100,951,920	104,159,520	105,180,010	103,019,364
1,419,120	1,246,320	1,585,760	1,589,220	1,856,520	1,905,520	1,764,180	1,741,838
602,640	466,560	704,700	1,089,200	881,060	1,006,920	1,219,860	.....
432,540	500,580	442,260	680,960	767,880	1,025,460	1,103,220	642,492
3,769,576	2,682,057	4,011,663	3,679,181	4,617,918	4,362,641	5,720,895	.....
976,860	1,550,840	1,098,940	1,846,800	2,211,300	2,352,240	2,721,100	2,422,542
412,100	379,080	442,260	680,400	724,140	573,480	563,760	.....
2,177,280	2,065,500	2,099,520	2,687,580	2,042,380	2,844,460	3,956,040	.....
408,380	612,860	683,620	544,820	991,440	908,620	881,720	.....
982,280	826,200	899,100	1,025,480	1,098,360	1,030,520	1,287,900	.....
1,088,780	806,760	987,980	2,046,080	1,501,740	1,492,020	1,108,080	1,515,848
1,328,077	1,069,211	1,065,847	1,152,678	1,198,395	1,178,554	1,261,444	1,209,408
1,521,180	1,190,700	1,284,440	1,385,100	1,383,100	1,321,920	1,477,440	1,314,514
787,714	692,884	814,384	848,238	842,739	949,169	894,420	936,984
2,149,280	2,629,260	3,022,740	3,222,280	2,964,600	2,280,500	3,814,520	3,059,856
496,768	487,787	443,985	481,153	430,900	418,189	423,140	.....
2,182,260	2,086,240	1,924,560	2,128,680	2,007,180	1,872,820	2,963,440	1,944,624
4,135,860	4,194,180	2,698,620	3,742,200	5,934,680	6,522,120	8,664,540	7,212,726
124,042	130,091	116,114	146,608	184,889	151,856	197,101	201,728
6,978,960	7,027,560	5,929,900	7,523,280	6,872,040	9,088,200	10,400,400	9,792,414
4,809	3,861	5,278	4,567	9,614	11,710	13,938	16,232
398,660	320,760	406,240	359,640	641,520	792,180	879,660	902,011
868,570	875	565	630	528	625	925	Entered withcooper.
262,440	189,540	262,440	206,460	202,440	315,900	422,820	.....
17,605	15,942	21,239	20,992	18,595	24,751	29,162	81,706
7,280,280	6,240,240	7,873,200	7,873,200	7,129,620	9,418,680	10,780,880	10,391,166
7,185	7,128	5,998	8,190	7,478	7,006	7,295	6,842
866,940	769,020	699,840	811,620	656,100	612,860	622,080	490,860
2,677	1,924	1,146	2,197	1,484	2,349	2,144	2,306
1,078,920	738,720	481,140	860,220	821,340	1,846,220	1,142,100	1,060,878
2,638	2,828	3,674	2,539	3,369	5,679	4,624	5,842
471,420	544,320	515,160	451,980	466,560	490,860	515,160	569,592
207,961	250,884	311,893	162,914	141,796	354,689	419,860	.....
140,640	189,540	286,740	87,480	77,760	179,820	194,460	.....
48,740	126,860	62,620	106,920	155,520	184,680	243,000	.....
17,520,800	16,140,060	16,538,580	18,370,800	17,082,900	22,428,900	25,150,500	.....
1,438,560	1,798,230	2,653,560	2,570,940	2,726,460	5,107,860	3,178,440	.....
966,580	909,820	961,720	908,882	1,025,460	1,137,240	1,161,540	.....
223,560	223,560	238,280	238,140	238,140	306,180	296,460	.....
569,820	607,500	592,920	656,100	782,460	526,200	1,187,240	.....
4,174,740	4,783,640	5,066,140	4,471,200	5,141,880	5,182,820	5,025,240	5,802,036
4,845,420	5,068,420	5,020,880	5,438,420	5,248,880	5,687,600	7,936,380	7,740,036
279,653	301,598	367,484	410,714	393,089	372,861	421,479	462,369
1,948,860	2,886,840	3,708,180	3,236,600	2,795,340	2,502,900	3,027,760	3,155,112
2,102,939	1,816,999	2,005,829	2,511,602	1,769,595	2,886,160	2,210,893	1,782,559
3,293,080	2,755,620	3,819,380	5,185,620	3,640,140	5,219,640	4,714,200	3,653,336
3,912,360	4,470,640	4,072,680	6,561,000	5,890,320	4,753,080	5,536,860	6,188,724
32,123,137	36,815,069	33,444,205	37,906,762	34,776,134	33,463,369	37,405,271	39,749,713
2,876,540	2,473,740	2,556,960	2,636,980	2,464,020	2,488,460	2,707,020	2,926,692
26,131	50,802	85,893	54,248	42,679	86,996	40,533	90,219
3,874,280	7,197,680	5,292,240	7,529,480	6,045,840	5,282,820	5,579,280	10,474,288
2,823,063	1,822,845	2,534,618	3,822,407	2,843,212	2,751,085	3,055,170	3,874,412
928,400	636,660	1,080,820	1,817,060	937,140	937,980	1,151,820	1,581,930
898,520	883,940	825,620	854,780	854,780	1,068,240	369,360	.....
903,960	1,156,680	991,440	1,321,920	1,020,600	1,182,880	1,841,880	.....
315,900	245,060	247,860	296,460	315,900	481,140	612,860	.....
2,840,145	2,722,041	3,664,939	2,775,664	2,990,077	2,781,257	2,526,942	.....
286,740	806,180	422,820	849,920	864,500	335,840	815,900	.....
3,805,880	4,267,080	4,510,080	6,813,900	5,448,060	4,787,100	5,914,620	5,996,696
11,118,200	11,019,092	10,160,862	11,434,831	12,889,122	14,125,900	14,968,273	.....
191,124,380	177,711,672	198,148,092	244,500,938	228,381,922	243,014,580	256,138,023	.....
84,347,730	84,293,831	66,645,244	4,120,120	65,028,322	65,383,542	62,582,594	67,496,642
10,391,652	5,999,184	6,919,668	13,646,894	10,309,532	10,170,036	12,399,837	.....
285,868,742	218,006,687	256,708,004	302,267,447	293,719,276	318,567,158	331,124,454	338,213,572

BRITISH INDIA—Continued.

Quantities and value of principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
Coffee.....	{ pounds... 42,043,344 dollars... 5,570,532	{ pounds... 41,118,784 dollars... 7,282,140	{ pounds... 35,056,000 dollars... 6,356,880	{ pounds... 41,776,000 dollars... 7,998,380	{ pounds... 34,048,000 dollars... 6,575,580
Coir and manufactures of.....	{ pounds... 20,576,080 dollars... 862,000	{ pounds... 18,282,328 dollars... 505,440	{ pounds... 17,150,784 dollars... 962,280	{ pounds... 12,488,302 dollars... 495,720	{ pounds... 19,784,576 dollars... 923,480
Cotton.....	{ pounds... 494,214,448 dollars... 68,151,320	{ pounds... 503,966,176 dollars... 64,310,320	{ pounds... 627,269,632 dollars... 74,149,020	{ pounds... 561,207,820 dollars... 64,545,000	{ pounds... 510,486,365 dollars... 57,085,580
Cotton twist and yarn.....	{ pounds... 670,194 dollars... 6,218,856	{ pounds... 679,620 dollars... 6,872,040	{ pounds... 961,440 dollars... 6,835,220	{ pounds... 1,574,640 dollars... 6,701,660	{ pounds... 2,070,880 dollars... 7,771,140
Cotton manufactures.....	{ pounds... 6,218,856 dollars... 335,340	{ pounds... 6,872,040 dollars... 335,340	{ pounds... 6,835,220 dollars... 340,200	{ pounds... 6,701,660 dollars... 301,320	{ pounds... 7,771,140 dollars... 364,500
Drugs and medicines.....	{ pounds... 335,340 dollars... 17,944,578	{ pounds... 335,340 dollars... 17,277,300	{ pounds... 340,200 dollars... 12,519,360	{ pounds... 301,320 dollars... 18,967,080	{ pounds... 364,500 dollars... 14,460,180
Dyes:					
Indigo.....	{ pounds... 17,944,578 dollars... (*)	{ pounds... 12,967,760 dollars... 821,840	{ pounds... 9,124,192 dollars... 1,040,040	{ pounds... 12,368,904 dollars... 686,400	{ pounds... 11,248,008 dollars... 1,394,820
Others, except lac.....	{ pounds... (*) dollars... 821,840	{ pounds... 821,840 dollars... 821,840	{ pounds... 1,040,040 dollars... 1,040,040	{ pounds... 686,400 dollars... 686,400	{ pounds... 1,394,820 dollars... 1,394,820
Grain and pulse:					
Rice, including paddy.....	{ tons... 1,281,167 dollars... 27,998,460	{ tons... 1,183,720 dollars... 26,973,000	{ tons... 974,008 dollars... 23,157,900	{ tons... 1,148,296 dollars... 25,511,460	{ tons... 1,115,184 dollars... 23,280,900
Wheat.....	{ bushels... 735,485 dollars... 815,022	{ bushels... 3,275,978 dollars... 4,019,220	{ bushels... 2,004,156 dollars... 2,396,280	{ bushels... 4,686,787 dollars... 4,409,180	{ bushels... 10,428,337 dollars... 9,515,880
Other.....	{ tons... 22,139 dollars... 831,060	{ tons... 22,139 dollars... 831,060	{ tons... 22,435 dollars... 1,122,060	{ tons... 41,248 dollars... 981,440	{ tons... 39,889 dollars... 1,044,960
Gums and resins.....	{ pounds... 21,059,024 dollars... 714,420	{ pounds... 24,407,752 dollars... 869,940	{ pounds... 28,716,336 dollars... 942,840	{ pounds... 32,231,564 dollars... 1,404,560	{ pounds... 32,231,564 dollars... 1,404,560
Hemp and manufactures of.....	{ pounds... 7,506,240 dollars... 845,060	{ pounds... 9,068,400 dollars... 883,940	{ pounds... 7,498,336 dollars... 883,940	{ pounds... 7,498,336 dollars... 883,940	{ pounds... 7,498,336 dollars... 883,940
Hides and skins.....	{ number... 22,996,017 pounds... 19,297,067	{ number... 19,297,067 pounds... 18,162,181	{ number... 18,162,181 pounds... 18,162,181	{ number... 19,414,183 pounds... 76,872,180	{ number... 19,414,183 pounds... 78,286,852
Horns.....	{ pounds... 14,200,434 dollars... 12,723,430	{ pounds... 12,723,430 dollars... 13,015,080	{ pounds... 13,015,080 dollars... 13,015,080	{ pounds... 14,312,700 dollars... 14,312,700	{ pounds... 14,580,000 dollars... 14,580,000
Ivory and manufactures of.....	{ pounds... 301,320 dollars... 631,800	{ pounds... 383,940 dollars... 450,840	{ pounds... 406,380 dollars... 568,620	{ pounds... 406,380 dollars... 568,620	{ pounds... 406,380 dollars... 568,620
Jewelry and precious stones.....	{ pounds... 268,412 dollars... 396,868	{ pounds... 247,860 dollars... 348,138	{ pounds... 442,260 dollars... 302,661	{ pounds... 378,060 dollars... 281,568	{ pounds... 328,280 dollars... 205,862
Jute.....	{ tons... 20,132,550 dollars... 920,978	{ tons... 10,086,960 dollars... 981,720	{ tons... 15,780,420 dollars... 1,161,540	{ tons... 18,062,300 dollars... 2,376,540	{ tons... 12,815,820 dollars... 3,494,340
Jute manufactures.....	{ tons... 920,978 dollars... 7,489,376	{ tons... 981,720 dollars... 1,258,580	{ tons... 1,161,540 dollars... 1,224,440	{ tons... 2,376,540 dollars... 3,674,080	{ tons... 3,494,340 dollars... 5,906,520
Lac (dye, shell, &c.).....	{ pounds... 989,982 dollars... 1,631,016	{ pounds... 1,258,580 dollars... 1,278,180	{ pounds... 1,224,440 dollars... 1,224,440	{ pounds... 3,674,080 dollars... 2,070,360	{ pounds... 5,906,520 dollars... 1,764,180
Oils.....	{ chests... 82,908 dollars... 55,531,818	{ chests... 82,908 dollars... 55,120,120	{ chests... 84,746 dollars... 58,065,440	{ chests... 88,359 dollars... 54,178,280	{ chests... 139,775 dollars... 60,228,800
Opium.....	{ tons... 29,063 dollars... 2,606,418	{ tons... 25,267 dollars... 2,259,900	{ tons... 80,966 dollars... 2,484,860	{ tons... 23,245 dollars... 1,686,140	{ tons... 26,112 dollars... 1,856,920
Salt peter.....	{ tons... 155,637 dollars... 7,330,338	{ tons... 248,248 dollars... 11,474,460	{ tons... 340,200 dollars... 15,726,960	{ tons... 598,392 dollars... 26,545,320	{ tons... 536,648 dollars... 25,850,810
Seeds.....	{ pounds... 2,373,939 dollars... 6,344,780	{ pounds... 2,892,230 dollars... 5,958,360	{ pounds... 1,759,769 dollars... 3,873,420	{ pounds... 1,417,018 dollars... 2,196,720	{ pounds... 1,068,490 dollars... 4,062,960
Silk.....	{ pounds... 972,000 dollars... 16,421,552	{ pounds... 1,100,400 dollars... 25,868,804	{ pounds... 1,230,300 dollars... 17,050,862	{ pounds... 1,268,460 dollars... 25,266,881	{ pounds... 1,156,680 dollars... 18,247,866
Silk manufactures.....	{ pounds... 833,004 dollars... 75,225,806	{ pounds... 1,156,680 dollars... 37,740,080	{ pounds... 1,185,660 dollars... 62,637,904	{ pounds... 1,492,029 dollars... 56,828,136	{ pounds... 1,492,029 dollars... 128,290,804
Spices.....	{ pounds... 2,636,064 dollars... 17,920,439	{ pounds... 1,870,520 dollars... 8,529,300	{ pounds... 1,914,840 dollars... 21,892,760	{ pounds... 1,882,220 dollars... 24,501,220	{ pounds... 4,855,140 dollars... 27,925,400
Sugar.....	{ pounds... 7,731,774 dollars... 811,620	{ pounds... 8,529,300 dollars... 811,620	{ pounds... 9,540,180 dollars... 1,278,180	{ pounds... 10,609,380 dollars... 835,920	{ pounds... 13,733,200 dollars... 447,120
Tobacco.....	{ pounds... 51,124 dollars... 1,847,960	{ pounds... 42,868 dollars... 2,026,760	{ pounds... 60,012 dollars... 1,764,180	{ pounds... 60,012 dollars... 1,764,180	{ pounds... 45,106 dollars... 1,817,640
Wood and manufactures of.....	{ cubic tons... 20,821,652 pounds... 4,187,370	{ cubic tons... 20,861,108 pounds... 4,699,620	{ cubic tons... 21,443,135 pounds... 4,644,760	{ cubic tons... 24,138,639 pounds... 5,384,080	{ cubic tons... 24,688,131 pounds... 5,360,580
Wool.....	{ pounds... 1,718,496 dollars... 10,409,390	{ pounds... 1,160,100 dollars... 6,190,860	{ pounds... 1,030,320 dollars... 5,761,768	{ pounds... 1,054,620 dollars... 7,728,768	{ pounds... 1,127,520 dollars... 7,239,212
Wool manufactures.....	{ pounds... 10,409,390 dollars... 268,518,708	{ pounds... 6,190,860 dollars... 267,109,220	{ pounds... 5,761,768 dollars... 273,677,588	{ pounds... 7,728,768 dollars... 282,100,668	{ pounds... 7,239,212 dollars... 296,273,532
All other articles.....	{ pounds... 10,409,390 dollars... 268,518,708	{ pounds... 6,190,860 dollars... 267,109,220	{ pounds... 5,761,768 dollars... 273,677,588	{ pounds... 7,728,768 dollars... 282,100,668	{ pounds... 7,239,212 dollars... 296,273,532
Total exports of merchandise.....	{ pounds... 268,518,708 dollars... 8,973,305	{ pounds... 267,109,220 dollars... 8,802,286	{ pounds... 273,677,588 dollars... 8,802,286	{ pounds... 282,100,668 dollars... 8,909,162	{ pounds... 296,273,532 dollars... 9,873,396
Less foreign merchandise.....	{ pounds... 8,973,305 dollars... 258,135,915	{ pounds... 8,802,286 dollars... 9,131,940	{ pounds... 8,802,286 dollars... 7,740,522	{ pounds... 8,909,162 dollars... 10,279,386	{ pounds... 9,873,396 dollars... 19,100,064
Total Indian merchandise.....	{ pounds... 259,545,403 dollars... 8,338,089	{ pounds... 258,306,934 dollars... 8,338,089	{ pounds... 264,875,302 dollars... 8,338,089	{ pounds... 273,191,506 dollars... 8,338,089	{ pounds... 286,400,136 dollars... 8,338,089
Treasures.....	{ pounds... 8,338,089 dollars... 267,267,855	{ pounds... 8,338,089 dollars... 267,267,855	{ pounds... 8,338,089 dollars... 272,615,824	{ pounds... 8,338,089 dollars... 283,470,892	{ pounds... 8,338,089 dollars... 305,560,200
TOTAL INDIAN MERCHANDISE AND TREASURE.....	{ pounds... 267,267,855 dollars... 267,267,855	{ pounds... 267,267,855 dollars... 267,267,855	{ pounds... 272,615,824 dollars... 272,615,824	{ pounds... 283,470,892 dollars... 283,470,892	{ pounds... 305,560,200 dollars... 305,560,200

* Inclosed with indigo.

† Quantities of raw hemp only.

‡ Teak timber only.

BRITISH INDIA—Continued.

exported (re-exports of foreign articles included).

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
23,498,000	28,804,000	40,432,000	41,552,000	39,424,000	40,580,000	39,313,120	38,890,884
4,531,840	7,523,280	7,936,880	8,227,980	7,144,200	6,896,540	7,144,200	4,259,184
4,563,792	21,255,584	14,847,840	14,550,256	25,793,488	19,959,408	19,818,160	26,753,120
724,140	913,680	563,620	510,300	495,720	738,720	763,020	1,041,496
387,583,616	332,155,728	442,229,312	608,655,376	630,553,728	691,059,876	570,057,862	567,810,096
45,620,820	38,483,040	54,164,700	64,854,120	72,012,280	78,352,160	69,993,720	64,571,904
3,620,700	4,558,680	5,657,040	6,463,800	6,908,080	9,107,840	9,637,380	12,182,976
7,533,000	7,984,840	7,649,640	8,641,080	9,306,900	10,071,960	11,304,800	10,108,800
588,060	427,680	617,220	685,260	548,180	746,440	602,640	.....
13,567,760	11,765,712	11,804,720	13,089,440	16,840,656	15,796,692	18,882,060	.....
16,960,840	14,855,600	14,822,420	17,359,920	21,918,740	19,017,180	22,565,280	22,823,766
1,871,100	1,944,000	1,251,080	1,078,820	1,030,320	1,255,680	1,326,780	.....
1,082,024	1,190,000	1,240,896	1,528,896	1,612,228	1,750,396	1,514,258	1,234,902
33,777,000	48,637,040	40,638,580	44,017,020	40,376,880	41,164,200	40,644,180	34,951,578
11,890,560	1,972,544	4,109,495	18,896,667	58,815,208	26,495,024	39,202,076	29,564,979
13,967,040	2,627,200	5,462,040	15,931,060	43,108,200	29,692,540	43,284,860	30,695,576
49,614	84,083	41,117	83,004	66,924	65,268	68,494	.....
1,589,940	1,472,580	1,652,400	1,832,920	1,618,380	1,655,200	1,709,040	.....
24,199,056	25,842,176	27,744,080	28,652,230	36,918,936	32,530,742	37,550,128	.....
1,030,320	1,051,620	1,594,080	2,211,800	1,544,920	1,735,020	1,929,420	.....
4,184,944	5,110,560	4,780,928	5,355,892	7,380,096	6,012,720	8,994,028	.....
281,880	230,420	199,200	208,980	272,160	213,840	340,200	.....
22,961,013	21,227,598	24,203,884	23,401,698	24,802,848	26,539,996	28,153,068	.....
101,466,844	90,444,064	107,876,976	91,010,080	91,334,880	97,042,400	102,627,840	116,057,828
18,256,280	15,066,280	16,166,960	18,166,960	19,197,000	21,602,700	22,681,620	23,991,520
947,700	680,400	626,940	942,840	616,380	884,520	783,020	.....
493,720	494,680	466,560	447,120	471,420	544,320	481,140	.....
524,880	830,480	835,340	262,440	316,180	815,900	286,740	282,896
805,215	837,197	874,117	825,349	420,578	679,699	893,007	469,646
17,097,480	18,468,000	21,288,200	19,119,240	24,445,800	28,416,420	22,817,120	22,652,040
3,747,060	5,836,280	5,847,700	5,496,660	5,331,420	7,231,680	6,463,240	7,503,356
11,728,804	10,802,096	7,966,000	9,700,125	13,177,136	15,550,528	12,523,952	.....
1,759,320	1,438,000	1,803,080	2,809,300	3,494,340	3,897,140	2,697,809	2,916,486
1,822,500	2,043,840	2,638,640	2,900,250	2,400,840	2,152,980	2,527,200	2,744,442
92,822	91,200	103,607	92,190	89,338	91,798	91,068	86,678
60,142,500	63,150,840	69,609,780	66,096,000	60,419,520	55,797,660	54,888,840	52,879,436
21,784	21,405	28,525	19,768	10,872	22,878	27,533	25,807
1,841,940	1,759,320	2,284,200	1,710,720	1,749,600	1,800,540	2,250,040	2,065,500
682,528	463,872	405,776	577,024	587,048	736,288	972,042	1,023,567
35,783,860	22,784,650	23,235,660	31,065,120	29,475,900	35,021,160	40,017,960	52,259,094
1,658,005	1,534,715	1,673,203	1,509,696	1,274,612	1,523,349	1,733,187	1,707,063
3,615,000	3,022,640	2,935,440	3,003,480	2,154,954	2,901,420	3,265,920	2,475,198
821,840	925,060	1,210,140	1,215,000	1,219,860	1,492,020	1,230,900	1,717,170
14,306,269	23,882,664	18,651,801	17,631,636	18,144,898	20,957,153	18,514,877	22,767,190
1,205,280	1,909,420	1,569,220	1,793,840	1,894,820	2,028,620	1,914,000	2,500,956
101,719,744	41,277,152	42,603,776	72,187,472	110,694,192	159,976,320	199,042,704	140,118,608
4,131,000	1,701,000	1,404,540	2,464,020	3,518,610	4,806,540	5,734,800	3,846,204
83,656,715	84,800,927	88,405,632	46,918,639	49,235,932	58,233,840	60,473,118	65,147,997
14,861,320	15,400,000	14,929,920	15,066,000	17,802,180	18,171,540	20,091,240	20,107,764
466,560	623,080	636,660	690,120	583,200	568,620	840,780	.....
50,962	37,487	38,622	65,642	56,887	50,198	46,471	.....
2,230,740	1,664,020	1,652,400	2,653,560	2,755,620	3,265,920	2,833,880	2,831,922
23,612,963	27,981,654	28,686,852	25,748,121	26,757,352	26,380,327	25,229,180	25,530,178
4,660,620	5,894,600	5,778,680	5,691,080	5,064,120	4,874,580	4,777,380	4,880,354
1,083,780	981,720	787,320	1,122,600	1,108,080	889,380	763,020	752,888
7,069,705	7,141,399	7,215,208	1,966,290	7,594,081	8,847,039	10,380,376	.....
316,802,663	203,942,949	326,461,548	362,222,080	396,043,625	405,328,039	427,810,776	.....
9,924,995	9,622,414	10,800,509	12,500,600	12,863,044	13,621,171	14,708,304	.....
306,877,670	283,320,533	315,661,039	349,721,430	385,180,481	391,706,868	418,102,472	.....
10,473,786	18,932,130	9,373,948	6,849,684	5,333,640	4,767,274	4,761,629	9,577,263
317,351,456	304,252,665	325,085,007	356,571,114	390,514,121	396,474,142	417,864,101	414,107,661

LABUAN.

Value of imports, including bullion

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Hong-Kong	11, 012	6, 172	.....	23, 279	19, 634
Singapore.....	176, 370	226, 764	326, 006	343, 927	415, 684
Borneo and Sooloo Islands.....	200, 160	204, 337	254, 122	247, 800	205, 208
All other .....	.....	20	.....	667	200
Total	337, 551	437, 293	580, 128	615, 733	740, 926

Value of exports, including bullion

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Hong-Kong.....	5, 832	.....	1, 367	6, 318	12, 150
Singapore.....	196, 830	268, 356	304, 722	303, 264	426, 708
Borneo and Sooloo Islands.....	200, 232	204, 120	245, 430	238, 626	292, 572
Coals supplied to ships	8, 512	9, 160	4, 144	952	3, 436
Total	411, 406	481, 645	555, 663	549, 160	734, 866

LABUAN.

and specie, from the several countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>				
39, 944	12, 150	18, 954	13, 268	.....	.....	.....	.....
379, 566	340, 200	376, 650	470, 448	.....	.....	.....	.....
346, 060	300, 126	417, 474	400, 950	.....	.....	.....	.....
.....	3, 626	311	403	.....	.....	.....	.....
765, 570	716, 102	812, 339	883, 069	.....	.....	.....	.....

and specie, to the several countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>				
24, 300	37, 969	17, 496	16, 524	.....	.....	.....	.....
332, 482	451, 173	449, 064	555, 190	.....	.....	.....	.....
346, 518	339, 952	331, 437	364, 011	.....	.....	.....	.....
7, 863	.....	3, 236	11, 508	.....	.....	.....	.....
761, 168	829, 094	801, 233	947, 233	.....	.....	.....	.....

LABUAN—Continued.

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
Beeswax..... { pounds ..	17, 723	42, 800	27, 333	8, 800	17, 733
{ dollars ..	6, 318	15, 066	11, 664	3, 280	8, 845
Birds' nests..... { pounds ..	24, 400	17, 600	16, 400	13, 330	26, 067
{ dollars ..	22, 356	17, 496	17, 496	19, 245	43, 254
Brassware..... dollars..	3, 324	2, 756	7, 290	6, 318	13, 122
Camphor..... dollars..	5, 346	6, 804	13, 122	16, 524	20, 967
Cash (copper coin)..... dollars..	3, 037	44, 712	65, 610	60, 544	38, 450
Gunny bags..... { number..	14, 650	29, 600	42, 000	.....	.....
{ dollars ..	2, 581	5, 832	6, 318	5, 589	4, 957
Gutta-percha and rubber..... dollars..	41, 796	15, 066	11, 664	15, 066	14, 094
Opium..... { chests ..	131	15	22	.....	.....
{ dollars ..	8, 263	8, 748	13, 122	10, 206	13, 008
Pearls and seed pearl..... dollars..	826	4, 880	10, 692	14, 580	6, 318
Pearl shell..... { pounds ..	.....	.....	.....	.....	.....
{ dollars ..	.....	.....	.....	.....	.....
Piece goods..... dollars..	67, 068	66, 040	110, 323	135, 108	206, 064
Provisions..... dollars..	1, 978	2, 678	3, 431	6, 804	11, 178
Rattans..... dollars..	6, 804	8, 262	22, 356	15, 066	12, 150
Rice..... dollars..	23, 328	36, 836	47, 142	34, 297	34, 855
Sago and sago flour..... dollars..	68, 520	108, 378	131, 706	132, 102	148, 716
Tobacco and cigars..... dollars..	5, 832	2, 920	5, 346	4, 510	8, 262
Tortoise shells..... dollars..	9, 204	5, 832	8, 262	10, 206	7, 290
Trepang (sea slug)..... { pounds ..	21, 333	55, 066	68, 600	80, 133	146, 067
{ dollars ..	13, 122	7, 776	6, 318	6, 804	16, 524
All other articles..... dollars..	97, 843	77, 131	88, 267	129, 404	134, 742
Total..... dollars..	387, 551	437, 293	580, 128	615, 733	740, 926

Quantities and value of domestic and foreign

Articles.	1873.	1874.	1875.	1876.	1877.
Domestic:					
Coal..... { tons.....	2, 506	3, 373	1, 489	520	940
{ dollars ..	13, 122	10, 524	7, 290	2, 585	4, 515
Sago flour..... { tons.....	2, 690, 533	5, 471, 067	5, 818, 933	5, 066, 000	8, 588, 000
{ dollars ..	54, 432	113, 724	123, 444	110, 492	203, 573
All other..... dollars..	.....	486	1, 166	2, 334	1, 108
Total domestic..... dollars..	67, 554	130, 734	131, 900	115, 911	211, 196
Foreign products..... dollars..	344, 102	350, 911	423, 785	433, 249	523, 670
Total exports..... dollars..	411, 656	481, 645	555, 683	549, 160	734, 866

LANSUAN—Continued.

imports, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
27,300	17,067	10,400	26,000	.....	.....	.....	.....
11,664	4,640	3,543	6,998	.....	.....	.....	.....
41,067	62,267	51,467	27,867	.....	.....	.....	.....
48,684	57,848	51,516	31,599	.....	.....	.....	.....
6,904	4,345	9,380	21,870	.....	.....	.....	.....
20,946	7,630	7,778	6,026	.....	.....	.....	.....
27,216	13,122	3,037	.....	.....	.....	.....	.....
.....	32,500	46,445	29,340	.....	.....	.....	.....
8,199	8,771	5,344	2,436	.....	.....	.....	.....
12,150	32,048	99,144	163,090	.....	.....	.....	.....
.....	84	24	26	.....	.....	.....	.....
11,654	18,468	15,066	19,294	.....	.....	.....	.....
10,296	4,627	1,506	6,076	.....	.....	.....	.....
.....	25,067	126,800	60,583	.....	.....	.....	.....
.....	4,952	80,938	15,635	.....	.....	.....	.....
146,751	128,444	161,838	214,326	.....	.....	.....	.....
16,534	19,294	19,926	39,609	.....	.....	.....	.....
22,814	41,310	44,226	39,852	.....	.....	.....	.....
102,546	75,816	74,844	66,096	.....	.....	.....	.....
181,764	182,250	141,426	110,808	.....	.....	.....	.....
8,748	14,094	13,608	11,178	.....	.....	.....	.....
13,552	5,540	6,804	5,978	.....	.....	.....	.....
80,128	106,183	140,983	71,883	.....	.....	.....	.....
8,748	8,748	17,983	7,290	.....	.....	.....	.....
112,630	93,455	103,485	125,918	.....	.....	.....	.....
765,570	716,102	812,389	885,069	.....	.....	.....	.....

exports, exclusive of exports in native vessels.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
1,486	2,553	587	1,212	.....	.....	.....	.....
7,776	11,804	8,713	7,654	.....	.....	.....	.....
4,195,467	5,961,867	4,996,267	4,361,733	.....	.....	.....	.....
118,934	157,076	181,978	101,545	.....	.....	.....	.....
96,541	10,620	3,689	5,346	.....	.....	.....	.....
225,251	178,904	189,880	114,545	.....	.....	.....	.....
535,912	650,100	661,903	632,688	.....	.....	.....	.....
761,163	829,094	801,283	947,233	.....	.....	.....	.....

STRAITS SETTLEMENTS.

Value of imports, including bullion

Countries.	1873.	1874.	1875.	1876.	1877.
SINGAPORE.					
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom.....	10,944,800	10,403,225	8,068,022	10,239,430	13,301,900
Australasia.....	237,132	254,070	326,057	340,280	156,220
India.....	6,908,352	6,980,909	6,451,319	7,724,820	6,406,100
Ceylon.....	46,109	28,700	83,406	88,190	89,010
Hong-Kong.....	5,222,079	5,975,350	3,354,670	4,926,070	5,907,800
Labuan.....	150,089	279,948	314,765	237,350	280,620
Mauritius.....	1,251	174	9,890	8,384	.....
All other.....	.....	.....	.....	87,690	190,770
Total United Kingdom and Possessions.....	23,509,312	23,922,376	19,161,119	23,604,904	26,027,890
Austria.....	.....	.....	.....	.....	.....
Germany.....	762,340	837,980	504,712	648,900	862,920
Holland.....	305,858	189,618	331,252	213,380	164,660
Dutch India.....	8,108,126	6,743,270	6,760,792	5,628,250	7,015,320
Italy.....	.....	.....	.....	.....	.....
France.....	727,393	970,171	787,617	724,430	746,900
French Possessions.....	2,431,534	2,201,469	2,350,148	1,704,790	1,275,730
Spanish Possessions.....	457,797	431,919	603,181	469,580	279,180
Sarawak and Borneo.....	629,057	445,564	449,798	530,118	643,430
China.....	738,690	855,000	1,121,672	1,241,740	1,681,470
Cochin China.....	.....	.....	.....	.....	.....
Japan.....	20,702	6,117	173,557	20,210	46,880
Malay Peninsula.....	2,681,342	2,696,906	3,086,009	3,041,840	3,282,090
Siam.....	2,843,232	2,639,468	2,983,911	3,384,940	3,029,150
United States.....	1,011	99	88,924	8,400	73,790
All other foreign countries.....	272,811	272,639	396,689	472,057	402,663
Total from foreign countries.....	43,688,361	42,891,570	38,889,361	41,748,549	45,032,738
Penang and Malacca.....	4,193,932	4,495,500	4,876,709	3,717,921	4,298,784
Total imports.....	47,882,293	46,887,070	43,766,070	45,466,470	49,331,517
PENANG.					
United Kingdom.....	1,306,332	1,817,699	1,778,490	2,176,050	3,297,050
Australasia.....	.....	.....	.....	.....	.....
India.....	2,555,336	2,670,290	3,316,084	3,161,280	2,609,780
Ceylon.....	23,054	2,649	24,466	747	1,043
Hong-Kong.....	1,262,814	1,764,856	1,063,218	2,030,610	2,339,080
All other.....	.....	.....	.....	8,980	201
Total United Kingdom and Possessions.....	5,227,536	6,455,494	6,782,258	7,397,217	8,247,534
Germany.....	60,570	79,515	111,509	115,150	247,690
Holland.....	801	.....	14,670	12,280	8,480
Dutch Possessions.....	2,556,506	2,532,477	2,583,796	2,443,830	2,196,470
Italy.....	.....	.....	.....	.....	.....
France.....	24,937	6,110	4,893	2,298	807
French Possessions.....	602	898	71,996	7,050	113,270
China.....	170,144	265,558	297,356	219,490	722,460
Malay Peninsula.....	826,998	685,778	1,065,212	978,070	948,480
Siam.....	2,972,619	2,844,648	2,292,276	2,296,480	2,252,710
United States.....	.....	.....	.....	.....	89,480
All other foreign countries.....	83,788	67,434	68,950	197,623	58,837
Total from foreign countries.....	12,429,005	14,017,907	14,805,173	13,778,633	15,377,078
Singapore and Malacca.....	2,145,009	3,005,554	1,945,518	2,285,240	1,819,849
Total imports.....	14,574,014	17,023,461	16,750,691	15,863,873	17,196,918
MALACCA.					
Dutch Possessions.....	157,147	59,754	90,807	75,670	149,490
Malay Peninsula.....	753,917	891,596	996,969	709,280	720,040
All other foreign countries.....	3,697	10,402	6,624	6,478	4,786
Total from foreign countries.....	919,761	961,754	1,094,420	791,378	874,236
Singapore and Penang.....	1,418,567	2,215,697	2,026,444	1,602,960	906,160
Total imports.....	2,338,328	3,207,451	3,120,864	2,454,238	1,780,396

* In the British official returns for the Straits Settlements the value, in details, of the imports and exports is given in dollars, reduced from the £ sterling at the following rates: For the years 1873, 1874, and 1875, \$4.764; for the years 1876, 1877, and 1878, \$4.706; for the years 1879, 1880, and 1881, \$5.324. These rates have been adhered to in the Department, in the reduction of sterling into dollars in the statement showing the trade by countries.

STRAITS SETTLEMENTS.

and specie, from the several countries.*

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
10, 843, 430	11, 605, 009	15, 221, 947	17, 158, 188				
98, 238	202, 200	144, 000	238, 900				
8, 069, 640	7, 390, 400	8, 751, 100	9, 509, 800				
20, 680	26, 571	43, 098	84, 853				
5, 414, 400	7, 326, 793	6, 480, 672	5, 886, 144				
234, 430	398, 144	253, 061	597, 662				
	7, 957	4, 789	8, 851				
134, 420							
24, 834, 238	† 26, 957, 074	30, 851, 682	33, 428, 748				
	17, 013	53, 440	217, 256				
788, 460	550, 028	686, 528	946, 087				
140, 532	80, 776	30, 457	72, 971				
7, 133, 546	9, 184, 464	9, 312, 741	12, 770, 072				
	92, 090	67, 717	85, 383				
351, 040	783, 088	839, 284	822, 845				
976, 660	1, 681, 509	965, 499	1, 662, 782				
405, 140	553, 845	502, 283	575, 419				
628, 390	898, 411	786, 272	783, 405				
1, 151, 200	1, 922, 371	1, 114, 016	1, 318, 795				
	221, 856	263, 056	252, 617				
8, 460	136, 539	645, 569	1, 234, 021				
3, 898, 570	3, 737, 341	2, 989, 701	3, 657, 856				
2, 661, 310	4, 563, 752	4, 790, 992	5, 806, 731				
178, 250	476, 629	44, 024	421, 461				
541, 150	(*)	163, 471	401, 000				
43, 194, 946	51, 613, 878	54, 606, 752	64, 558, 349				
4, 064, 391	4, 664, 414	0, 098, 981	6, 111, 833				
47, 259, 337	56, 278, 292	60, 675, 732	70, 669, 682				
6, 040, 010	4, 505, 060	3, 910, 929	3, 295, 460				
4, 068, 820	3, 781, 864	4, 108, 265	5, 108, 270				
978	42, 167	48, 858	36, 800				
2, 134, 740	2, 747, 736	2, 506, 140	2, 967, 469				
37, 600							
12, 282, 548	11, 078, 127	10, 574, 192	11, 407, 999				
171, 080	164, 800	149, 000	204, 300				
12, 690	19, 734	13, 332	18, 000				
3, 210, 100	3, 412, 264	2, 222, 400	1, 789, 266				
	32, 635	5, 070	70, 945				
7, 520	6, 884	8, 296	11, 727				
129, 250	85, 872	75, 200	120, 000				
842, 630	895, 788	174, 915	450, 663				
1, 190, 040	1, 600, 534	1, 821, 343	4, 096, 550				
1, 504, 470	1, 592, 627	2, 289, 310	10, 118				
102, 460	150, 400	47, 485	54, 917				
84, 843	29, 283	145, 489	182, 651				
19, 037, 631	18, 572, 998	17, 501, 041	18, 303, 136				
1, 825, 010	2, 245, 200	2, 223, 481	2, 130, 600				
20, 962, 641	20, 818, 198	19, 724, 522	20, 493, 738				
67, 210	152, 144	146, 064	54, 235				
837, 070	1, 207, 079	1, 254, 411	1, 578, 084				
4, 659	2, 069	2, 189	16, 402				
908, 839	1, 361, 292	1, 402, 664	1, 649, 721				
1, 884, 700	1, 857, 051	1, 915, 181	2, 014, 509				
2, 793, 639	2, 718, 848	3, 817, 848	3, 664, 230				

* The distribution by countries for the year 1879 amounts to \$220,908 more than the total.

STRAITS SETTLEMENTS—Continued.

Value of exports, including bullion

Countries.	1873.	1874.	1875.	1876.	1877.
SINGAPORE.					
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
United Kingdom	5, 173, 907	6, 444, 909	5, 737, 420	6, 711, 600	7, 965, 660
Australasia	133, 622	160, 446	153, 333	218, 050	212, 910
India	1, 429, 849	1, 633, 106	1, 207, 777	1, 078, 890	1, 800, 830
Ceylon	44, 227	20, 231	16, 468	3, 300	45, 060
Hong-Kong	3, 512, 282	3, 789, 407	2, 703, 910	3, 164, 980	2, 512, 150
Labuan	50, 814	80, 456	230, 194	282, 650	223, 720
Mauritius	109, 156	78, 103	72, 457	77, 090	105, 220
All other British Possessions		550		97, 780	128, 780
Total United Kingdom and Possessions	13, 453, 947	12, 207, 208	10, 111, 609	11, 588, 370	13, 004, 290
Austria					
Germany	78, 163	226, 310	652, 118	477, 700	171, 560
Holland	9, 880		625	5, 170	
Dutch Possessions	10, 096, 930	9, 139, 463	9, 526, 213	9, 367, 570	10, 432, 740
Italy					
France	514, 303	514, 351	1, 336, 220	889, 240	1, 189, 570
French Possessions	3, 653, 962	3, 204, 100	2, 756, 059	2, 842, 560	3, 000, 880
Spanish Possessions	234, 306	269, 000	243, 307	213, 850	202, 570
Sarawak and Borneo	622, 001	557, 068	477, 557	449, 320	429, 110
China	1, 514, 069	877, 012	957, 467	817, 330	1, 014, 730
Cochin China					
Malay Peninsula	1, 822, 941	1, 678, 568	2, 811, 070	3, 006, 170	1, 989, 510
Siam	2, 488, 474	2, 991, 439	3, 535, 450	4, 057, 800	3, 569, 280
United States	2, 535, 524	2, 486, 592	2, 444, 247	2, 052, 020	2, 499, 540
All other	489, 462	307, 560	1, 441, 938	643, 943	422, 777
Total to foreign countries	37, 572, 905	34, 448, 675	36, 293, 930	36, 412, 043	38, 465, 527
To Penang and Malacca	4, 179, 240	7, 060, 323	5, 325, 589	4, 262, 740	2, 962, 880
Total exports	41, 752, 145	41, 508, 998	41, 619, 519	40, 674, 783	41, 428, 407
PENANG.					
United Kingdom	3, 846, 808	2, 577, 637	3, 663, 313	2, 644, 737	2, 284, 294
Australasia					
India	1, 703, 210	1, 870, 425	1, 626, 519	1, 514, 069	1, 862, 281
Hong-Kong	1, 685, 517	2, 228, 758	2, 001, 977	1, 400, 083	1, 537, 062
All other	154, 783	31, 053	15, 056	18, 330	11, 936
Total United Kingdom and Possessions	7, 340, 298	7, 007, 873	7, 306, 865	5, 577, 819	5, 695, 575
Germany	5, 175	239, 485			63, 068
Holland			204, 667	63, 629	3, 302, 623
Dutch Possessions	2, 969, 326	4, 429, 287	5, 461, 564	5, 942, 060	6, 364, 646
Italy					
France	47	43	0		
French Possessions	28, 700	49, 873	113, 390	92, 073	132, 963
China	189, 141	238, 592	301, 590	349, 398	409, 981
Malay Peninsula	1, 023, 513	1, 833, 270	1, 225, 182	898, 893	780, 623
Siam	3, 280, 791	2, 788, 007	2, 417, 429	1, 778, 669	1, 344, 851
United States		86, 454	249, 370	7, 990	45, 402
All other foreign countries	17, 773	294, 965	36, 603	30, 908	28, 460
Total to foreign countries	14, 859, 737	16, 570, 449	17, 316, 666	14, 761, 483	18, 167, 692
To Singapore and Malacca	2, 384, 024	2, 412, 724	1, 814, 248	1, 816, 033	2, 434, 275
Total exports	17, 243, 761	18, 983, 173	19, 130, 917	16, 577, 521	20, 601, 970
MALACCA.					
Dutch Possessions	161, 852	39, 522	84, 219	63, 685	153, 653
Malay Peninsula	598, 947	428, 744	434, 271	632, 239	649, 267
All other foreign countries	272	1, 329	161	2, 660	3, 087
Total to foreign countries	761, 071	467, 595	518, 651	698, 563	806, 009
Singapore and Penang	555, 666	1, 683, 449	1, 224, 241	1, 314, 094	856, 652
Total exports	1, 316, 737	2, 151, 044	1, 742, 892	2, 012, 197	1, 662, 661

STRAITS SETTLEMENTS—Continued.

and specie, to the several countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
7,241,290	7,992,565	8,953,444	11,965,253				
276,360	185,829	856,837	224,336				
1,880,940	2,271,476	1,737,816	2,587,203				
637,320	22,101	52,683	40,021				
3,777,230	3,712,315	3,667,424	4,614,176				
146,170	110,860	76,491	142,981				
141,940	188,523	70,768	57,632				
122,670			15,387				
13,223,920	14,433,678	14,915,463	19,006,980				
	93,008	249,839	475,200				
338,400	336,651	808,299	352,128				
4,544	26,245	102,121	28,183				
9,967,290	12,279,938	13,928,241	14,022,629				
	62,298	105,589	157,616				
1,205,550	1,527,739	1,784,445	1,511,820				
2,780,980	3,886,507	3,569,632	3,573,083				
203,040	837,147	448,859	608,912				
596,900	632,715	572,320	330,068				
860,577	789,181	2,429,232	1,786,480				
	303,451	415,632	377,051				
2,672,420	3,352,158	2,535,605	3,302,480				
2,606,150	4,562,811	4,219,443	4,645,408				
2,362,069	4,092,191	5,129,147	4,281,344				
611,147	4,052,623	5,812,233	4,643,982				
37,373,001	46,676,105	51,426,453	55,372,004				
2,648,920	2,574,133	3,152,528	2,629,184				
40,021,921	49,250,238	54,578,981	58,001,188				
2,945,772	2,643,067	2,692,608	2,448,859				
	5,591	92,040	412,912				
2,207,731	2,269,509	2,500,768	2,253,008				
1,746,238	1,635,531	1,898,789	1,171,685				
14,476	19,519	295	2,245				
6,914,217	6,573,217	6,685,500	6,288,709				
		1,856	101,845				
2,310,061	3,065,074	1,073,803	29,893				
8,917,216	7,811,333	5,084,085	3,976,128				
			11,099				
67,089	23,200	32,251					
98,841	60,299	67,456	130,421				
314,289	337,064	695,840	249,060				
978,057	1,140,747	1,674,673	2,582,443				
2,046,145	1,155,845	1,081,511	115,040				
24,968	444,267	876,709	28,651				
66,700	57,101	148,329	5,249				
21,648,583	20,688,747	17,422,013	13,518,538				
1,390,556	1,916,162	2,416,107	2,466,805				
23,009,189	22,604,909	19,838,119	16,005,343				
72,450	169,824	197,904	58,734				
858,422	622,656	778,805	778,500				
3,369							
934,241	792,480	976,709	837,234				
1,682,842	1,977,645	2,657,931	3,082,197				
2,617,043	2,770,125	3,634,640	3,919,431				

STRAITS SETTLEMENTS—Continued.

Quantities and value of imports,

Articles.	1873.	1874.	1875.	1876.	1877.
SINGAPORE.					
Apparel	dollars 331,699	555,588	680,711	653,518	631,529
Coal	tons 121,127	140,965	104,840	146,672	278,838
.....	dollars 1,404,506	1,524,339	9-3,445	1,227,905	1,757,516
Coffee	pounds 5,651,072	4,721,860	5,787,376	5,473,440	6,665,232
.....	dollars 717,886	786,394	889,779	944,553	1,003,477
Cotton goods	pieces 6,919,483	6,150,887	5,909,206	3,162,969	3,511,758
.....	dollars 6,095,970			6,095,970	6,594,508
Cotton sarongs*	dollars 625,948			625,948	687,284
Cotton twist	pounds 1,796,808	2,039,632	1,896,528	767,760	1,206,576
.....	dollars 689,584	654,685	677,979	635,748	730,974
Earthen and china ware	dollars 800,773	821,113	234,605	323,623	342,884
Fish, dried or salted	pounds 15,245,328	14,196,000	13,642,490	19,759,824	16,365,216
.....	dollars 747,341	754,088	639,244	911,791	918,264
Gambier	pounds 53,903,690	56,020,496	55,201,210	60,697,392	63,293,328
.....	dollars 1,732,301	1,936,920	2,128,926	2,015,091	1,948,321
Grain, rice	tons 127,653	81,642	188,668	125,200	99,325
.....	dollars 3,800,177	2,677,635	3,935,891	3,618,012	3,364,303
Gumies	dollars 231,614			231,614	263,104
Gutta percha	pounds 5,785,472	3,732,512	2,165,070	1,814,736	2,603,440
.....	dollars 1,451,484	840,241	510,490	462,069	775,600
Hardware and cutlery	dollars 290,703	203,878	252,912	271,957	298,669
Hides	pounds 5,179,152	4,019,660	4,940,820	5,351,136	6,256,218
.....	dollars 456,750	362,449	448,708	406,632	525,049
Metals:					
Tin	tons 4,423			4,423	6,026
.....	dollars 1,521,151			1,521,151	1,603,125
Oil:					
Cocconut	dollars 214,430	188,377	262,672	194,571	331,071
Kerosene and paraffine	dollars 4,572,402	5,030,441	4,411,921	5,362,827	4,781,530
Opium	dollars 18,981,436	21,782,656	26,588,648	25,697,392	27,080,976
Pepper	dollars 2,388,880	1,563,898	2,019,226	1,670,966	1,696,965
Precious stones	dollars 12,906	10,534	12,645	348,764	285,540
Rattans	tons 698,602	612,872	578,419	9,717	10,398
.....	dollars 543,795			543,795	593,567
Sago, raw	pounds 27,562,410			27,562,410	37,444,160
.....	dollars 229,667			229,667	329,258
Sago flour	pounds 41,405,728	44,704,576	49,469,168	23,778,044	25,000,304
.....	dollars 524,202	656,334	645,274	429,063	541,844
Sago, pearl	pounds 335,216			335,216	577,136
.....	dollars 8,921			8,921	11,153
Silk, raw	pounds 798,963	1,152,498	571,320	179,760	246,284
.....	dollars 798,184	798,074	562,071	359,060	671,209
Silk, piece goods	pieces 62,772			62,772	65,597
Spirits	dollars 452,257			452,257	469,178
.....	dollars 363,003			363,003	
Sugar	pounds 9,762,368	12,006,176	10,818,264	832,912	395,683
.....	dollars 445,048	448,324	863,247	408,576	479,131
Tapioca	pounds 1,169,504	1,033,200	2,174,256	3,172,400	2,730,856
.....	dollars 212,573	258,592	326,777	242,824	291,842
Tobacco, manufactured	pounds 3,898,576	3,665,536	2,052,960	3,921,120	3,908,253
.....	dollars 500,909	470,401	285,115	401,681	520,175
Cigars	pieces 387,428	334,810	486,297	346,725	256,769
Woolen goods	dollars 206,752			206,752	251,013
.....	dollars 379,465	607,634	405,024	383,554	375,482
All other articles	dollars 11,712,530	12,779,373	11,342,963	9,267,360	10,706,161
Total merchandise	dollars 42,477,411	41,711,872	39,586,461	40,979,431	44,310,195
Bullion and specie	dollars 5,404,882	5,175,198	4,179,740	4,087,939	5,017,222
Total imports	dollars 47,882,293	46,887,070	43,766,201	45,066,470	49,327,517
PENANG.					
Cotton goods	pieces 946,113	1,719,593	1,503,514	914,734	1,444,759
.....	dollars 1,181,844			1,181,844	1,480,355
Cotton, raw	pounds 1,160,432			1,160,432	1,500,384
.....	dollars 100,702			100,702	153,454
Fish, dry or salted	pounds 1,623,440	2,044,120	1,620,828	2,068,663	1,496,320
.....	dollars 68,606	70,499	115,397	112,778	90,972

* Native waist-cloths or petticoats.

STRAITS SETTLEMENTS—Continued.

including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
726,044	726,627	815,357	772,108	.....	.....	.....	.....
174,482	152,797	191,274	289,498	.....	.....	.....	.....
1,882,979	1,351,908	1,610,141	2,154,277	.....	.....	.....	.....
5,131,892	7,047,920	5,021,112	7,134,144	.....	.....	.....	.....
625,632	963,586	608,923	612,141	.....	.....	.....	.....
2,917,650	3,120,159	3,910,774	4,442,180	.....	.....	.....	.....
5,161,089	5,376,060	7,342,591	8,116,026	.....	.....	.....	.....
451,122	634,649	763,462	1,009,396	.....	.....	.....	.....
1,040,256	812,344	1,194,784	482,944	.....	.....	.....	.....
757,040	541,547	883,905	422,120	.....	.....	.....	.....
291,258	290,527	361,193	358,958	.....	.....	.....	.....
19,618,336	17,108,336	21,592,256	33,235,104	.....	.....	.....	.....
836,524	951,987	1,115,388	1,454,763	.....	.....	.....	.....
78,677,200	71,172,408	72,790,480	90,698,368	.....	.....	.....	.....
2,331,893	2,454,052	2,325,602	3,010,108	.....	.....	.....	.....
108,487	189,864	152,215	192,546	.....	.....	.....	.....
4,511,748	4,697,005	5,504,839	7,033,400	.....	.....	.....	.....
348,886	569,744	322,731	355,392	.....	.....	.....	.....
2,727,206	5,670,960	5,616,800	8,273,604	.....	.....	.....	.....
806,140	1,757,585	1,729,781	3,005,552	.....	.....	.....	.....
244,621	252,565	455,579	426,216	.....	.....	.....	.....
7,576,904	6,403,712	5,987,184	9,721,936	.....	.....	.....	.....
650,490	479,108	596,495	912,929	.....	.....	.....	.....
5,268	5,784	7,541	8,288	.....	.....	.....	.....
1,452,887	1,952,741	3,023,887	3,512,475	.....	.....	.....	.....
303,097	274,934	179,886	162,542	.....	.....	.....	.....
4,674,564	4,654,685	5,306,098	5,605,859	.....	.....	.....	.....
27,913,536	28,121,262	16,581,712	30,382,464	.....	.....	.....	.....
1,727,477	2,036,048	1,558,259	2,658,884	.....	.....	.....	.....
185,886	267,092	339,965	782,786	.....	.....	.....	.....
13,637	13,330	14,781	19,869	.....	.....	.....	.....
744,446	852,490	979,229	1,473,635	.....	.....	.....	.....
46,084,900	50,918,560	53,442,816	24,027,024	.....	.....	.....	.....
403,150	469,162	497,778	328,265	.....	.....	.....	.....
23,816,192	25,478,992	19,030,908	19,650,176	.....	.....	.....	.....
983,441	597,068	493,107	494,644	.....	.....	.....	.....
452,704	716,128	183,120	24,640	.....	.....	.....	.....
122,86	32,204	7,458	704	.....	.....	.....	.....
258,746	398,384	536,256	333,633	.....	.....	.....	.....
736,556	899,196	812,675	846,781	.....	.....	.....	.....
56,881	59,804	55,571	75,075	.....	.....	.....	.....
277,977	457,544	438,568	491,672	.....	.....	.....	.....
373,652	411,915	365,587	324,442	.....	.....	.....	.....
491,371	725,760	789,519	575,516	.....	.....	.....	.....
17,662,176	29,795,249	1,072,866	34,776,776	.....	.....	.....	.....
840,741	5,289,872	3,994,952	1,095,917	.....	.....	.....	.....
3,329,536	4,990,608	3,994,952	3,994,952	.....	.....	.....	.....
278,817	265,435	303,535	343,206	.....	.....	.....	.....
3,165,690	4,989,600	5,292,112	3,997,952	.....	.....	.....	.....
425,259	673,515	661,536	648,484	.....	.....	.....	.....
326,528	360,905	341,657	459,260	.....	.....	.....	.....
105,149	163,096	245,784	218,865	.....	.....	.....	.....
222,228	208,020	366,315	510,285	.....	.....	.....	.....
10,323,764	10,969,787	11,811,965	14,944,856	.....	.....	.....	.....
42,716,523	43,664,991	54,161,674	65,272,864	.....	.....	.....	.....
4,542,614	7,013,301	6,514,059	5,426,818	.....	.....	.....	.....
47,259,337	56,278,292	60,675,733	70,699,682	.....	.....	.....	.....
1,686,840	1,987,149	2,111,804	2,210,510	.....	.....	.....	.....
1,658,528	1,705,247	1,937,458	1,988,849	.....	.....	.....	.....
2,107,280	2,480,352	1,162,224	217,728	.....	.....	.....	.....
158,897	44,655	70,752	10,020	.....	.....	.....	.....
1,894,032	2,375,840	2,358,196	2,114,673	.....	.....	.....	.....
118,974	160,240	166,542	761,216	.....	.....	.....	.....

STRAITS SETTLEMENTS—Continued.

Quantities and value of imports,

Articles.		1873.	1874.	1875.	1876.	1877.
PENANG—continued.						
Grain, rice.....	{ pounds	55,044,418	46,080,720	71,929,312	77,577,648	45,607,856
	{ dollars	885,675	767,011	1,182,365	1,396,172	714,648
Gunnies.....	{ number				315,850	552,610
	{ dollars				88,375	72,812
Hides.....	{ pounds	1,027,488	962,240	1,702,960	658,000	746,704
	{ dollars	60,847	100,268	114,761	56,528	70,206
Ironware, hardware, and cutlery dolls.					48,715	90,324
Japanware.....					590	24,291
Oil: Kerosene and paraffine.....	{ dollars					
Opium.....	{ dollars	1,245,159	1,906,286	1,405,208	1,173,429	1,238,421
Pepper.....	{ pounds	17,900,484	16,794,400	23,771,360	12,323,804	22,538,544
	{ dollars	1,789,548	1,590,908	2,159,877	725,019	1,220,470
Provisions.....	{ dollars				327,728	851,940
Silks.....	{ pieces				78,512	90,683
	{ dollars	35,630	225,413	443,564	456,979	368,209
Tin.....	{ tons	6,009	8,733	9,028	9,604	10,499
	{ dollars	2,880,919	3,109,029	3,051,893	2,945,941	2,913,530
Tobacco.....	{ pounds	3,685,920	5,370,896	4,696,384	3,785,936	7,233,776
	{ dollars	1,160,867	1,373,177	909,042	975,491	1,724,398
Wine.....	{ gallons				48,412	94,726
	{ dollars				92,941	101,894
Woolen goods.....	{ dollars				26,625	35,825
All other articles.....	{ dollars	3,411,679	4,177,892	3,759,266	3,733,361	3,729,660
Total merchandise.....	{ dollars	12,484,543	14,440,076	14,387,827	13,342,711	14,905,409
Bullion and specie.....	{ dollars	2,089,471	2,583,885	1,912,864	2,521,162	2,751,509
Total imports.....	{ dollars	14,574,014	17,023,461	16,250,691	15,863,873	17,656,918
MALACCA.						
Grain:						
Paddy.....	{ pounds					58,925,624
	{ dollars	103,828	40,806	41,912		126,634
Rice.....	{ pounds	19,689,498		9,708,160		11,225,812
	{ dollars	408,473	405,215	334,413		246,370
Opium.....	{ chests					266
	{ dollars	275,549	381,089	211,000		204,960
Tin.....	{ pounds					5,207,776
	{ dollars	858,041	919,493	1,016,500		687,850
Tobacco.....	{ pounds					487,852
	{ dollars	38,431	22,001	47,753		55,259
All other articles.....	{ dollars	148,026	241,447	281,226		273,002
Total merchandise.....	{ dollars	1,832,348	2,009,551	1,932,804		1,593,075
Bullion and specie.....	{ dollars	505,960	1,197,900	1,188,060		187,321
Total imports, Malacca.....	{ dollars	2,338,328	3,207,451	3,120,864	2,454,238	1,780,396
Total imports, Penang.....	{ dollars	14,574,014	17,023,461	16,250,691	15,861,873	57,656,918
Total imports, Singapore.....	{ dollars	47,882,293	46,887,070	43,766,201	45,066,470	49,327,517
Total Straits Settlements.....	{ dollars	64,794,635	67,117,982	63,137,756	63,384,581	68,764,831

STRAITS SETTLEMENTS—Continued.

including bullion and specie—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
89, 232, 782	110, 945, 072	94, 972, 528	183, 783, 713	.....	.....	.....	.....
2, 019, 283	2, 304, 196	2, 106, 127	2, 385, 459	.....	.....	.....	.....
524, 890	438, 875	104, 470	376, 850	.....	.....	.....	.....
70, 096	55, 867	49, 204	54, 206	.....	.....	.....	.....
1, 632, 186	488 656	771, 504	635, 876	.....	.....	.....	.....
87, 550	40, 069	46, 983	62, 867	.....	.....	.....	.....
116, 500	178, 981	156, 229	184, 021	.....	.....	.....	.....
75, 180	67, 102	45, 826	57, 593	.....	.....	.....	.....
.....	154, 020	88, 485	118, 321	.....	.....	.....	.....
1, 274, 748	1, 203, 505	1, 379, 784	1, 989, 829	.....	.....	.....	.....
21, 807, 856	17, 266, 256	12, 945, 632	11, 765, 152	.....	.....	.....	.....
1, 066, 653	992, 568	994, 606	840, 667	.....	.....	.....	.....
280, 840	362, 882	290, 467	278, 840	.....	.....	.....	.....
89, 759	80, 566	142, 378	168, 290	.....	.....	.....	.....
373, 809	582, 827	537, 818	790, 867	.....	.....	.....	.....
8, 138	8, 809	9, 632	8, 267	.....	.....	.....	.....
2, 205, 938	2, 579, 473	3, 520, 250	3, 562, 682	.....	.....	.....	.....
5, 650, 786	6, 691, 776	2, 573, 088	2, 681, 952	.....	.....	.....	.....
1, 761, 702	1, 856, 793	590, 368	542, 108	.....	.....	.....	.....
21, 149	37, 102	28, 787	24, 256	.....	.....	.....	.....
60, 843	75, 412	63, 671	61, 414	.....	.....	.....	.....
69, 658	84, 784	29, 186	46, 893	.....	.....	.....	.....
4, 186, 067	4, 494, 195	4, 551, 518	4, 482, 632	.....	.....	.....	.....
15, 583, 295	16, 890, 046	16, 652, 718	17, 630, 685	.....	.....	.....	.....
5, 274, 346	3, 928, 152	3, 070, 814	2, 665, 051	.....	.....	.....	.....
20, 863, 641	20, 818, 108	19, 724, 522	20, 495, 736	.....	.....	.....	.....
6, 510, 672	12, 184, 648	14, 989, 296	6, 910, 096	.....	.....	.....	.....
51, 085	135, 892	111, 133	48, 039	.....	.....	.....	.....
28, 898, 448	4, 016, 496	22, 582, 000	28, 292, 096	.....	.....	.....	.....
832, 299	390, 071	475, 553	603, 224	.....	.....	.....	.....
362	392	328	299	.....	.....	.....	.....
197, 200	198, 000	179, 300	185, 575	.....	.....	.....	.....
6, 367, 648	6, 311, 984	6, 984, 692	7, 758, 240	.....	.....	.....	.....
780, 614	1, 140, 943	1, 164, 855	1, 512, 184	.....	.....	.....	.....
505, 456	.....	.....	232, 784	.....	.....	.....	.....
58, 342	47, 508	55, 207	42, 995	.....	.....	.....	.....
276, 535	235, 674	228, 739	363, 533	.....	.....	.....	.....
2, 196, 075	2, 146, 088	2, 214, 789	2, 755, 550	.....	.....	.....	.....
507, 565	572, 255	1, 103, 059	908, 080	.....	.....	.....	.....
2, 793, 639	2, 718, 343	3, 317, 848	3, 664, 230	.....	.....	.....	.....
20, 862, 641	20, 818, 196	19, 724, 522	20, 495, 736	.....	.....	.....	.....
47, 259, 337	56, 278, 292	60, 075, 793	70, 699, 682	.....	.....	.....	.....
70 915, 617	79, 314, 323	83, 718, 103	94, 859, 648	.....	.....	.....	.....

STRAITS SETTLEMENTS—Continued.

Quantities and value of exports.

Articles.	1873.	1874.	1875.	1876.	1877.
SINGAPORE.					
Apparel, millinery, and hosiery, dolls.				208, 419	504, 841
Bags, gunnies				224, 483	313, 087
Coffee	pounds 4, 058, 992	3, 889, 680	5, 895, 008	7, 279, 985	4, 989, 352
	dollars 514, 161	478, 485	859, 798	926, 421	1, 028, 135
Copra	pounds				
	dollars				
Cotton goods	pieces			2, 147, 879	2, 845, 785
	dollars 4, 596, 522	6, 246, 591	4, 639, 979	4, 578, 905	4, 039, 817
Cotton sarongs	dollars			77, 492	127, 599
Cotton twist	pounds 1, 005, 536	2, 019, 806	1, 210, 720	1, 542, 352	1, 752, 473
	dollars 458, 813	520, 980	553, 878	606, 639	645, 968
Fish, dry or salted	pounds 18, 590, 762	10, 589, 512	9, 288, 944	14, 087, 920	12, 278, 989
	dollars 527, 888	551, 196	590, 385	731, 698	954, 554
Gambier	pounds 69, 856, 976	69, 876, 224	78, 990, 240	88, 618, 880	101, 937, 898
	dollars 8, 214, 448	2, 961, 587	3, 894, 146	8, 273, 789	8, 419, 876
Grain, rice	pounds 148, 216, 640	97, 428, 576	147, 548, 688	165, 896, 640	101, 016, 040
	dollars 2, 254, 298	1, 666, 454	2, 357, 031	2, 869, 380	2, 073, 249
Gums, dyes, and rosins	pounds				
	dollars				
Gutta percha	pounds 8, 775, 744	2, 825, 200	1, 844, 416	1, 972, 574	3, 554, 544
	dollars 994, 600	853, 155	377, 400	439, 173	1, 062, 772
Hides	pounds 4, 518, 976	5, 188, 736	4, 324, 098	5, 447, 456	8, 301, 440
	dollars 411, 756	436, 569	428, 798	504, 692	733, 140
Nutmegs	pounds				
	dollars				
Oil, kerosene and paraffine	cases				
	dollars				
Opium	pounds 8, 637, 771	4, 055, 434	4, 379, 692	4, 629, 536	4, 118, 399
	dollars 28, 298, 048	24, 039, 728	33, 371, 056	27, 183, 288	37, 241, 792
Pepper	pounds 3, 258, 623	2, 845, 726	2, 628, 481	1, 999, 088	8, 535, 764
Precious stones	dollars				
Provisions	tons 10, 026	10, 718	9, 677	10, 768	12, 105
	dollars 627, 816	689, 587	548, 607	645, 699	785, 462
Rattans	pounds				
	dollars				
Rubber	pounds 41, 118, 784	33, 812, 800	40, 839, 152	36, 637, 040	49, 444, 640
	dollars 894, 918	821, 018	894, 132	874, 728	1, 211, 562
Sago	pounds 356, 272	247, 488	292, 272	265, 698	235, 964
	dollars 828, 320	590, 619	512, 720	448, 944	699, 335
Silk, raw	pieces			15, 437	7, 705
	dollars 237, 892	249, 457	241, 018	163, 480	112, 825
Sugar	pounds			4, 394, 844	3, 205, 124
	dollars			189, 940	148, 307
Tapioca	pounds			8, 261, 456	12, 167, 008
	dollars			274, 850	481, 361
Tin	pounds 8, 935, 808	10, 164, 784	13, 186, 880	9, 054, 740	11, 394, 899
	dollars 2, 373, 547	1, 874, 615	2, 030, 562	1, 480, 929	1, 739, 964
Tobacco and cigars	dollars			598, 328	504, 303
All other articles	dollars 9, 393, 570	9, 364, 334	9, 312, 673	7, 765, 393	7, 979, 583
Total merchandise	dollars 84, 305, 942	83, 715, 957	84, 438, 800	33, 680, 875	85, 208, 365
Bullion and specie	dollars 7, 446, 202	7, 793, 041	7, 180, 719	6, 953, 908	6, 220, 042
Total exports	dollars 41, 752, 145	41, 508, 998	41, 619, 519	40, 614, 783	41, 428, 407
PENANG.					
Animals, cattle	number 1, 112	10, 224	11, 728	19, 040	16, 049
	dollars 23, 042	209, 289	280, 049	483, 131	398, 541
Areca nuts	pounds 11, 055, 296	21, 296, 896	18, 604, 880	13, 457, 996	14, 300, 048
	dollars 244, 345	443, 075	303, 561	341, 480	370, 201
Cotton goods	pieces			989, 572	822, 570
	dollars 1, 003, 593	1, 782, 014	1, 566, 342	1, 161, 854	889, 809
Fish, dry or salted	pounds 4, 403, 280	6, 481, 664	5, 505, 616	5, 916, 960	3, 573, 248
	dollars 127, 806	200, 402	206, 553	221, 300	180, 805
Grain, rice	pounds 52, 190, 880	45, 095, 456	52, 399, 088	68, 480, 272	53, 821, 376
	dollars 897, 847	884, 533	960, 215	1, 229, 754	1, 203, 772
Gums, dyes, and rosins	dollars				
	pounds				
Gutta percha	dollars				
	pounds 1, 252, 956	1, 442, 112	1, 208, 480	1, 003, 408	988, 400
	dollars 129, 269	154, 891	127, 519	84, 987	95, 956
Hides	pounds 370, 720	354, 368	353, 936	311, 186	288, 064
	dollars 183, 349	187, 406	184, 096	155, 367	139, 198
Nutmegs	dollars				

STRAITS SETTLEMENTS—Continued.

Including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
397,800	299,259	278,575	70,477				
298,070	588,820	888,712	607,300				
4,338,328	8,157,296	6,587,056	7,997,920				
551,991	1,169,760	825,827	897,270				
	2,111,088	14,775,376	17,198,384				
	81,530	495,957	470,875				
2,075,292	2,623,489	2,800,553	8,148,427				
4,200,971	5,046,192	5,587,713	6,994,200				
143,014	123,811	126,739	875,371				
1,890,432	907,744	1,111,804	978,528				
563,107	561,213	716,028	875,754				
12,401,816	12,744,368	16,983,568	29,184,072				
808,525	929,308	1,195,885	1,785,380				
87,744,048	96,504,913	104,288,760	88,176,000				
3,095,553	3,276,244	3,527,988	3,044,087				
115,705,856	194,655,776	224,677,824	269,345,440				
2,788,109	4,801,542	4,698,138	5,181,088				
	8,717,184	9,054,652	6,642,832				
	542,206	647,064	492,010				
3,142,882	7,831,856	5,171,264	8,270,240				
1,006,859	1,956,921	1,574,945	2,491,203				
8,562,960	8,462,954	8,069,748	9,818,024				
810,208	660,461	880,968	1,175,451				
	653,908	396,144	752,752				
	244,957	194,228	372,025				
	127,642	142,846	164,932				
	284,394	285,982	402,806				
3,826,409	3,796,157	4,724,108	4,473,650				
30,874,368	29,732,932	25,019,456	30,246,384				
2,063,867	2,167,790	2,151,973	2,840,485				
	885,489	352,274	929,860				
	703,369	655,055	546,094				
14,597	16,018	18,928	18,902				
934,538	1,133,856	1,604,173	1,739,876				
	492,688	848,400	1,443,400				
	173,243	104,693	488,390				
51,077,376	44,282,560	43,334,144	49,905,968				
1,484,960	1,363,370	1,278,531	1,400,410				
270,816	344,786	502,096	257,488				
682,103	890,864	801,913	712,691				
11,415	8,250	14,019	21,635				
118,802	132,022	206,789	199,101				
3,186,832	7,904,048	6,033,552	6,861,456				
233,317	448,664	368,655	434,472				
12,885,968	16,160,816	27,053,264	36,512,560				
539,543	684,731	1,085,534	1,196,885				
11,985,792	12,020,848	15,810,704	17,959,312				
1,477,418	1,962,293	3,210,755	3,920,749				
586,423	600,275	715,838	697,378				
6,705,490	6,711,163	7,347,064	8,322,589				
33,311,627	41,218,863	46,174,162	53,637,877				
6,710,294	8,031,375	8,404,819	4,863,311				
40,021,921	49,250,238	54,578,981	58,001,188				
21,414	17,064	19,102	12,003				
585,076	365,471	352,991	301,432				
12,590,256	14,895,760	16,018,576	15,402,240				
522,504	546,909	423,987	323,806				
628,290	633,699	621,050	575,159				
820,740	719,637	777,507	666,277				
7,584,944	7,055,552	5,941,600	7,141,800				
288,812	290,582	216,188	270,145				
60,998,776	92,883,056	93,585,568	77,820,736				
1,645,174	2,611,264	1,126,693	1,414,429				
	74,195	94,778	63,299				
	234,528	375,648	88,704				
	59,463	122,609	25,137				
1,202,592	603,008	551,712	513,104				
115,875	50,050	46,518	76,570				
414,736	304,416	279,878	448,673				
297,920	188,362	161,437	194,866				

STRAITS SETTLEMENTS—Continued.

Quantities and values of exports,

Articles.	1873.	1874.	1875.	1876.	1877.
PENANG—continued.					
Oil:					
Cocoanut	{ pounds. 1,252,500	1,414,836	1,677,064	2,016,000	2,005,472
.....	{ dollars. 102,248	109,582	102,463	143,785	138,510
Kerosene and paraffine	{ gallons. ....	.....	.....	.....	.....
.....	{ dollars. ....	.....	.....	.....	.....
Opium	{ pounds. 1,007,435	1,076,891	1,120,554	938,645	1,080,228
Pepper	{ pounds. 18,134,592	14,318,192	25,079,712	14,014,672	22,850,688
.....	{ dollars. 1,900,032	1,644,167	2,003,431	897,685	1,348,544
Provisions	{ dollars. ....	.....	.....	273,504	351,690
.....	{ pounds. ....	.....	.....	.....	.....
Rubber	{ dollars. ....	.....	.....	.....	.....
.....	{ pieces. ....	.....	.....	54,461	23,027
Silks	{ dollars. 15,567	58,164	142,950	164,671	108,392
.....	{ pounds. 23,727,212	29,762,672	25,047,680	25,161,024	23,808,520
Sugar	{ dollars. 730,157	908,775	604,768	824,860	880,133
.....	{ pounds. ....	.....	.....	.....	.....
Tapioca	{ dollars. ....	.....	.....	.....	.....
.....	{ pounds. 15,452,304	20,262,144	19,366,704	17,345,328	18,912,432
Tin	{ dollars. 3,397,930	3,964,741	3,385,521	2,786,391	2,766,011
.....	{ pounds. 1,752,240	2,220,736	2,775,024	1,622,544	6,692,012
Tobacco	{ dollars. 537,640	730,791	865,780	414,513	3,545,000
All other articles	{ dollars. 2,763,958	2,768,888	3,019,154	3,322,084	2,904,751
Total merchandise	{ dollars. 13,054,221	15,123,527	14,969,964	13,519,001	16,378,126
Bullion and specie	{ dollars. 4,189,540	3,859,646	4,160,953	3,068,520	4,442,844
Total exports	{ dollars. 17,243,761	18,983,173	19,130,917	16,587,521	20,821,970
MALACCA.					
Grain, rice	{ pounds. 8,153,468	6,870,528	4,395,328	.....	9,413,936
.....	{ dollars. 154,236	138,994	236,440	.....	199,388
.....	{ chests. ....	.....	.....	.....	353
Opium	{ dollars. 207,323	231,280	165,699	.....	211,600
.....	{ pounds. 5,793,760	15,909,073	7,838,656	.....	4,993,408
Tapioca	{ dollars. 225,008	175,786	21,620	.....	173,180
.....	{ pounds. *6,239,400	.....	4,882,080	.....	2,802,240
Tin	{ dollars. *159,440	1,254,015	973,650	.....	479,369
All other articles	{ dollars. 193,811	138,368	295,083	.....	210,213
Total merchandise	{ dollars. 989,817	1,938,443	1,692,492	.....	1,273,950
Specie	{ dollars. 376,920	212,611	50,400	.....	390,711
Total exports of Malacca	{ dollars. 1,316,737	2,151,054	1,742,892	2,013,197	1,664,661
Total exports of Penang	{ dollars. 17,243,761	18,983,173	19,130,917	16,587,521	20,821,970
Total exports of Singapore	{ dollars. 41,752,145	41,508,998	41,619,519	40,614,783	41,428,407
Total exports of Straits Settlements	{ dollars. 60,812,643	62,643,225	62,493,328	59,215,501	63,915,088

*As given in official figures.

STRAITS SETTLEMENTS—Continued.

including bullion and specie—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1884.
1,161,828	1,006,962	672,000	658,282	.....	.....	.....	.....
86,949	56,741	48,865	41,058	.....	.....	.....	.....
.....	261,214	214,228	172,834	.....	.....	.....	.....
.....	91,617	29,830	45,519	.....	.....	.....	.....
838,645	888,675	1,469,941	1,715,473	.....	.....	.....	.....
21,008,624	16,220,736	13,408,536	13,500,892	.....	.....	.....	.....
1,820,220	691,712	1,018,817	1,230,924	.....	.....	.....	.....
692,596	282,527	253,066	219,440	.....	.....	.....	.....
.....	65,632	95,288	146,043	.....	.....	.....	.....
.....	25,487	51,805	79,696	.....	.....	.....	.....
40,752	44,591	63,769	47,389	.....	.....	.....	.....
123,977	177,044	281,667	236,548	.....	.....	.....	.....
84,738,150	86,863,376	.....	25,827,200	.....	.....	.....	.....
1,379,906	1,539,024	1,730,752	920,813	.....	.....	.....	.....
.....	2,719,696	3,115,168	3,784,488	.....	.....	.....	.....
.....	109,747	144,841	181,215	.....	.....	.....	.....
22,093,568	18,781,404	18,019,568	16,279,872	.....	.....	.....	.....
2,749,281	3,096,091	3,796,588	3,611,829	.....	.....	.....	.....
5,923,904	6,186,416	4,491,152	1,475,488	.....	.....	.....	.....
2,846,814	3,004,707	1,414,021	486,144	.....	.....	.....	.....
4,722,022	3,143,839	2,390,306	1,663,138	.....	.....	.....	.....
17,385,817	17,814,644	16,489,987	13,661,750	.....	.....	.....	.....
5,623,322	4,790,265	3,348,132	2,343,503	.....	.....	.....	.....
23,009,139	22,604,909	19,838,119	16,005,343	.....	.....	.....	.....
10,181,136	8,219,792	8,912,400	9,361,152	.....	.....	.....	.....
247,849	197,208	196,687	189,280	.....	.....	.....	.....
290	824	273	239	.....	.....	.....	.....
142,400	162,000	150,150	146,065	.....	.....	.....	.....
9,169,532	12,868,808	23,821,780	29,286,658	.....	.....	.....	.....
384,648	521,852	844,238	925,748	.....	.....	.....	.....
5,641,216	7,515,984	7,921,424	8,166,480	.....	.....	.....	.....
800,193	1,038,839	1,340,650	1,788,909	.....	.....	.....	.....
235,753	348,075	366,666	272,833	.....	.....	.....	.....
1,914,843	2,282,974	2,898,300	3,332,835	.....	.....	.....	.....
702,200	487,151	735,740	586,576	.....	.....	.....	.....
2,617,043	2,770,125	3,624,040	3,919,481	.....	.....	.....	.....
23,009,139	22,604,909	19,838,119	16,005,343	.....	.....	.....	.....
40,021,921	40,256,238	54,578,981	58,001,188	.....	.....	.....	.....
65,648,103	74,635,272	78,051,140	77,925,962	.....	.....	.....	.....

CHINA.

Value of imports into China

{Exclusive of the trade carried on in native

	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Great Britain and dependencies:					
The United Kingdom.....	31,450,320	30,504,480	31,433,170	29,848,390	28,791,960
Hong-Kong.....	37,933,120	35,973,840	41,012,250	39,141,960	39,743,890
India.....	25,397,680	27,849,440	32,133,950	23,758,020	28,415,550
Straits Settlements.....	864,880	965,730	1,043,000	1,244,100	1,430,820
Australasia.....	818,760	905,920	829,930	747,890	767,520
Canada.....	234,080	249,280	89,400	78,650	116,640
Total.....	96,698,840	96,449,680	96,598,700	94,819,010	99,313,270
United States.....	370,880	404,320	1,513,840	1,058,770	1,638,720
Continent of Europe.....	1,006,240	785,840	1,141,340	1,178,820	1,269,840
Russia in Asia (Manchuria).....	41,640	115,520	150,490	141,570	164,180
Japan.....	4,874,640	3,669,280	3,704,140	4,484,480	5,052,960
Philippine Islands, Java, Siam, and Cochin China.....	1,667,440	741,760	1,114,520	1,651,650	1,977,120
All other countries.....	260,480	39,921	70,030	187,290	139,810
Total imports.....	105,120,160	102,268,820	104,296,060	103,519,030	109,560,880

Total value of exports of domestic

{Exclusive of the trade carried on in native

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Great Britain and dependencies:					
United Kingdom.....	56,602,560	51,097,840	43,456,850	56,433,240	40,008,960
Hong-Kong.....	11,898,560	17,182,080	18,963,030	20,702,110	21,968,640
India.....	3,565,920	1,360,400	359,090	263,840	832,320
Straits Settlements.....	679,440	921,120	1,181,570	847,990	1,368,000
Australasia.....	3,184,440	3,372,880	3,316,740	2,794,220	3,810,880
Cape Colony.....	.....	91,200	138,570	104,390	165,600
Canada.....	27,360	118,560	65,560	10,010	.....
Total.....	76,018,280	74,144,080	67,510,410	75,160,900	67,154,400
United States.....	11,436,480	10,365,600	11,434,650	10,367,500	11,449,480
Continent of Europe.....	11,418,240	11,111,200	14,822,520	21,691,670	8,851,680
Russia in Asia.....	3,123,000	2,273,920	4,610,060	4,744,740	5,597,280
Japan.....	1,738,880	2,672,100	2,909,970	2,435,310	2,662,560
Philippine Islands, Java, Siam, and Cochin China.....	1,295,040	1,304,160	1,373,180	1,113,970	1,373,760
All other countries.....	535,000	89,740	19,580	82,940	1,600
Total exports.....	105,565,520	101,900,800	102,680,370	115,618,930	87,120,800

CHINA.

from the principal countries.

vessels, for which no returns could be obtained.]

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
21,680,400	27,448,550	30,195,780	32,283,280	25,883,240	22,855,500	22,706,800	30,708,760
34,793,250	40,015,350	41,749,140	42,418,400	40,106,040	39,272,850	41,231,800	45,143,040
30,561,650	33,813,950	28,574,280	36,470,840	25,204,320	23,157,790	21,894,200	20,670,720
1,194,800	1,125,900	1,190,940	1,546,320	2,159,700	1,980,500	1,969,800	2,368,000
510,400	480,600	306,800	579,360	731,400	569,700	153,120	327,680
411,800	139,050	140,780	303,000	302,220	225,450	89,780	65,210
94,154,300	102,524,400	102,157,200	113,604,200	94,387,820	88,011,790	88,050,000	99,124,410
3,268,850	3,430,350	1,662,900	4,488,000	4,522,200	3,655,800	3,240,120	4,243,200
1,197,700	2,382,500	3,160,800	3,360,280	3,441,720	3,219,750	2,361,080	3,225,600
216,050	374,295	239,138	153,680	209,760	209,250	345,320	247,040
5,807,250	4,612,950	4,881,350	5,140,520	6,129,960	5,046,300	4,889,640	6,737,620
1,373,100	1,124,000	589,200	913,000	1,023,960	1,013,850	676,700	817,920
207,350	86,105	13,432	9,560	40	30,160	29,980	106,670
106,122,600	114,474,600	112,663,200	127,674,240	109,715,520	101,187,900	99,602,200	114,554,160

produce to principal countries.

vessels, for which no returns could be obtained.]

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
40,034,500	35,268,750	38,397,120	30,914,160	30,796,420	33,169,500	26,083,100	28,149,760
21,719,950	22,144,050	22,920,420	24,018,960	22,752,060	25,450,200	23,101,600	20,313,600
542,800	742,500	1,526,280	549,440	653,200	750,600	852,240	753,920
1,561,650	1,186,650	1,345,500	1,598,000	1,418,640	1,238,200	1,145,700	1,278,720
2,552,000	2,394,900	2,619,240	2,921,280	3,067,740	2,177,550	2,232,440	2,406,400
321,900	206,550	81,420	179,520	153,180	206,550	196,980	233,080
-----	-----	86,940	23,120	80,040	168,000	309,540	2,560
66,732,300	61,943,400	66,976,920	60,204,480	58,916,340	63,120,600	53,921,600	58,143,040
9,535,200	12,105,450	12,567,660	13,901,920	11,619,600	9,925,200	11,095,200	10,621,440
12,274,280	13,720,050	17,829,000	14,936,060	13,397,040	12,922,200	15,170,140	10,561,280
4,795,150	5,653,900	5,927,100	4,791,280	5,319,900	5,463,850	5,678,920	4,999,680
2,440,350	3,114,550	3,040,140	2,419,040	2,438,660	1,904,850	2,406,640	1,908,480
1,568,900	1,046,250	924,600	806,480	1,170,240	1,244,700	1,219,400	1,356,080
32,250	85,850	213,780	115,920	56,880	180,900	486,420	617,680
97,899,400	97,579,350	107,479,920	97,176,080	92,918,460	94,767,300	89,973,320	83,207,680

CHINA—Continued.

Quantities and value of principal

[The trade of China here given represents that transacted in foreign bottoms,

Articles.	1873.	1874.	1875.	1876.	1877.
Coal	{ tons 126,624 { dollars 1,375,600	127,920 1,029,040	157,600 1,443,810	140,321 1,042,470	185,076 1,535,040
Cotton	{ pounds .. 27,002,645 { dollars 3,263,440	1,583,137 150,480	22,601,241 2,226,060	29,022,333 3,218,930	20,680,082 2,106,720
Cotton manufactures:					
Gray shirting	{ pieces 3,756,606 { dollars 11,455,720	5,399,693 13,711,920	4,384,948 10,574,520	5,196,033 11,182,450	4,494,523 9,269,280
Other shirtings	{ pieces 654,103 { dollars 2,255,680	895,839 2,787,260	1,076,292 3,318,230	941,625 2,612,610	1,007,694 2,685,600
Yarn	{ pounds 9,005,572 { dollars 5,300,240	9,187,337 2,992,830	12,202,167 4,093,030	15,073,218 4,074,070	15,449,546 4,091,040
All other	dollars 13,724,080	8,279,440	12,108,800	11,304,350	11,026,060
Total cotton, manufactures, dol- lars	32,735,720	27,771,500	30,094,580	29,173,480	27,072,000
Fish, salted and fresh	{ pounds { dollars 279,517 1,325,440	4,739,517 352,150 364,856 950,000	5,565,472 480,740 892,623 1,278,420	9,248,747 680,630 413,515 1,401,400	8,473,379 572,640 399,165 1,445,760
Ginseng	{ pounds { dollars 279,517 1,325,440	364,856 950,000	892,623 1,278,420	413,515 1,401,400	399,165 1,445,760
Matchee	{ gross boxes { dollars 213,728 269,040	213,728 269,040	326,803 277,140	463,555 373,230	549,117 416,160
Metals:					
Copper and manufact- ures of	{ pounds 1,715,724 { dollars 399,860	1,493,598 296,320	1,674,496 817,370	2,814,047 320,320	1,641,650 527,040
Iron and manufactures of	{ pounds 27,468,353 { dollars 1,001,680	32,942,060 1,057,920	59,033,083 1,464,670	43,229,788 1,071,070	61,755,098 1,304,640
Lead and quicksilver	{ pounds 12,271,453 { dollars 940,880	20,918,667 1,555,080	23,667,177 2,191,790	25,524,266 1,847,560	31,259,599 2,036,160
Tin and tin plates	{ pounds 8,730,766 { dollars 2,263,520	9,025,935 2,263,280	10,515,662 1,897,370	9,662,863 1,492,920	13,612,711 2,147,040
Total metals	{ pounds 50,181,296 { dollars 4,608,940	64,381,260 5,168,580	94,890,368 5,781,200	81,230,964 4,731,870	108,469,058 6,014,880
Oils	dollars 381,440	296,010	148,320		
Opium:					
Malwa	{ pounds 5,433,450 { dollars 29,282,800	5,834,751 28,569,520	5,165,833 24,103,600	5,861,852 25,777,180	5,567,618 27,563,040
Patna	{ pounds 1,990,352 { dollars 8,969,520	2,325,703 9,846,560	2,058,429 9,161,040	2,130,660 8,960,120	2,034,140 8,841,200
Benares	{ pounds 1,219,523 { dollars 5,491,860	1,056,786 4,532,640	1,003,920 4,063,920	1,146,194 4,583,160	1,431,737 5,879,120
Other	{ pounds 74,493 { dollars 331,360	106,666 479,680	175,153 691,360	174,084 739,310	322,403 1,293,920
Total opium	{ pounds 8,717,818 { dollars 44,075,540	9,323,906 43,428,400	8,403,334 38,019,920	9,312,690 40,068,770	9,355,898 43,577,280
Seaweed and agar-agar	{ pounds 40,808,148 { dollars 972,800	43,767,041 874,000	35,689,223 850,770	39,471,900 870,870	33,568,369 758,120
Wool manufactures	{ pounds { dollars 9,037,920	6,864,020	6,795,890	6,090,370	9,656,940
All other articles	dollars 3,493,520	10,983,510	13,391,528	12,537,020	12,158,120
Total imports	dollars 101,289,240	97,838,720	101,026,470	100,486,100	105,456,960

CHINA—Continued.

articles imported for home consumption.

no statistics being obtainable concerning that carried on in native vessels—junks.]

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
224, 120 1, 654, 450	193, 339 1, 084, 050	235, 863 1, 336, 840	277, 998 1, 770, 240	278, 409 1, 683, 600	296, 057 1, 632, 920	289, 716 2, 000, 620	333, 135 2, 220, 800
14, 154, 471 1, 396, 800	23, 423, 789 2, 070, 900	11, 679, 181 1, 247, 520	18, 406, 878 2, 022, 820	23, 826, 813 1, 265, 460	28, 209, 854 2, 635, 000	24, 081, 918 2, 380, 560	17, 520, 557 1, 698, 440
2, 787, 639 5, 538, 240	5, 602, 552 10, 990, 350	4, 653, 736 8, 888, 580	5, 830, 371 10, 681, 440	5, 270, 875 9, 678, 320	4, 417, 233 8, 048, 700	4, 311, 551 7, 068, 820	6, 128, 085 10, 578, 240
994, 165 2, 701, 350	1, 462, 168 3, 543, 400	1, 637, 169 3, 968, 880	2, 265, 724 5, 125, 840	1, 776, 000 4, 253, 160	1, 699, 841 3, 855, 600	2, 081, 226 4, 171, 420	4, 158, 050 5, 523, 240
14, 468, 060 3, 655, 450	18, 408, 048 4, 307, 850	20, 227, 453 5, 034, 240	23, 028, 847 5, 750, 080	24, 596, 887 6, 216, 900	30, 438, 668 7, 076, 700	33, 804, 063 7, 462, 560	387, 820 10, 074, 880
11, 868, 550	11, 669, 400	14, 375, 460	13, 866, 560	11, 186, 280	10, 782, 450	10, 346, 140	14, 336, 960
23, 203, 560	30, 510, 000	32, 267, 160	35, 428, 920	31, 335, 600	29, 768, 450	29, 068, 940	40, 112, 320
14, 912, 484 870, 000	8, 463, 366 540, 000	8, 888, 097 609, 980	13, 205, 019 727, 600	10, 960, 350 676, 200	14, 731, 735 1, 008, 750	11, 101, 968 750, 400	11, 567, 200 851, 200
471, 522 1, 447, 100	498, 598 1, 317, 000	482, 469 623, 760	488, 908 715, 960	631, 588 1, 053, 940	467, 250 997, 640	402, 508 810, 700	509, 067 1, 002, 240
926, 969 584, 350	1, 037, 010 580, 300	1, 419, 540 804, 540	1, 706, 480 1, 015, 952	1, 904, 629 1, 178, 140	1, 871, 628 812, 700	1, 198, 918 950, 780	2, 430, 683 1, 214, 560
2, 763, 100 301, 600	2, 142, 006 441, 450	2, 322, 596 342, 240	3, 178, 932 447, 740	2, 539, 837 510, 000	3, 005, 065 412, 100	3, 001, 323 496, 800	6, 281, 200 884, 480
72, 246, 062 1, 376, 060	106, 326, 181 1, 864, 350	114, 169, 784 2, 115, 540	99, 981, 626 1, 758, 480	99, 674, 304 1, 771, 920	109, 189, 668 2, 003, 400	112, 618, 197 1, 967, 230	160, 884, 133 2, 557, 640
39, 761, 281 2, 074, 950	24, 146, 407 1, 302, 750	21, 489, 762 1, 121, 940	37, 789, 044 1, 678, 240	33, 997, 644 1, 516, 620	26, 409, 504 1, 081, 850	14, 896, 373 645, 880	21, 900, 921 880, 640
13, 006, 638 1, 963, 850	9, 426, 056 1, 354, 050	8, 585, 228 1, 451, 760	15, 902, 915 2, 044, 080	9, 701, 846 2, 002, 380	10, 092, 467 2, 011, 530	9, 683, 156 1, 646, 890	11, 662, 267 2, 099, 200
127, 777, 981 5, 691, 250	143, 940, 652 4, 962, 600	147, 047, 818 5, 031, 480	156, 802, 537 5, 928, 240	145, 912, 631 5, 901, 520	148, 646, 109 5, 509, 850	188, 466, 069 4, 775, 760	200, 318, 521 6, 421, 960
568, 406	692, 560	671, 820	673, 200	1, 330, 320	947, 700	1, 106, 840	2, 199, 120
4, 985, 624 27, 986, 450	5, 358, 556 28, 048, 950	4, 611, 182 23, 969, 220	4, 871, 282 27, 640, 640	3, 916, 223 18, 004, 200	4, 701, 603 18, 254, 600	5, 902, 266 19, 744, 900	4, 488, 067 16, 861, 440
2, 472, 204 10, 076, 050	2, 823, 525 10, 658, 250	2, 208, 151 9, 063, 220	2, 402, 466 9, 968, 280	2, 053, 096 7, 568, 620	1, 712, 130 6, 593, 050	1, 821, 741 6, 968, 464	1, 897, 970 6, 768, 620
1, 651, 796 6, 268, 700	2, 173, 113 7, 620, 750	2, 309, 150 8, 769, 900	2, 411, 949 9, 738, 960	2, 004, 770 7, 688, 620	1, 962, 325 6, 535, 650	1, 652, 082 6, 968, 560	1, 905, 067 6, 507, 520
595, 010 2, 830, 150	731, 713 2, 997, 000	662, 298 2, 841, 420	871, 755 3, 753, 600	797, 930 3, 036, 060	723, 602 2, 899, 500	582, 733 2, 867, 880	600, 067 2, 429, 440
9, 618, 044 46, 781, 350	11, 086, 907 49, 842, 950	9, 285, 731 44, 645, 780	10, 557, 452 51, 126, 480	8, 772, 019 36, 277, 440	8, 908, 560 34, 316, 200	9, 958, 802 34, 109, 800	8, 892, 371 32, 561, 920
44, 570, 711 1, 071, 550	59, 246, 633 1, 293, 300	58, 737, 864 1, 097, 100	51, 811, 751 1, 015, 920	53, 414, 151 1, 854, 720	45, 105, 686 1, 890, 500	40, 424, 150 1, 041, 180	57, 811, 333 1, 144, 320
7, 070, 200	6, 687, 900	8, 019, 180	7, 961, 440	6, 204, 480	2, 535, 520	4, 971, 140	6, 174, 720
13, 894, 880	11, 944, 300	13, 070, 720	18, 455, 708	18, 585, 220	17, 579, 070	17, 912, 020	17, 234, 400
102, 665, 800	111, 006, 450	109, 424, 840	126, 836, 960	107, 246, 700	99, 816, 800	100, 499, 740	112, 896, 000

BRITISH AFRICA.

Quantities and value of principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
EAST COAST.					
<i>Mauritius.</i>					
Coal	{ tons 25,705	28,514	38,475	41,672	24,358
	{ dollars... 196,280	204,806	260,010	267,796	127,818
Grain:					
Rice	{ pounds... 135,613,658	127,828,096	143,461,096	160,288,800	130,442,688
	{ dollars... 2,015,442	1,961,982	2,156,786	2,388,288	2,111,184
Wheat	{ bushels... 107,807	836,967	211,838	216,889	315,484
	{ dollars... 105,948	800,848	107,316	208,494	347,490
Other, including flour	{ dollars... 689,518	837,378	569,518	643,950	737,748
Cotton goods:					
Plain	{ yards... 7,079,394	7,605,688	6,985,374	6,945,812	6,890,523
	{ dollars... 471,420	492,804	427,680	385,884	381,996
Colored	{ yards... 4,320,204	4,881,415	5,714,442	4,484,919	8,334,547
	{ dollars... 381,024	428,166	449,120	365,958	632,286
Haberdashery, mercery, and millinery,	{ dollars... 284,310	250,290	168,156	157,464	195,172
Hardware and cutlery	{ dollars... 407,268	382,482	228,420	192,456	367,416
Machinery and mill-work	{ dollars... 312,012	416,016	60,284	36,450	138,024
Manure, guano	{ tons... 20,688	44,760	17,469	16,439	39,644
	{ dollars... 640,062	1,850,108	520,020	478,224	1,117,324
Wine	{ dollars... 446,634	485,028	817,358	232,308	397,662
All other articles	{ dollars... 4,677,280	4,689,941	2,545,027	3,420,279	4,066,716
Total merchandise	{ dollars... 10,530,167	11,799,149	8,919,675	8,783,541	10,640,236
Specie	{ dollars... 1,396,764	759,132	1,747,170	2,317,784	826,686
Total imports	{ dollars... 11,926,931	12,558,281	10,666,845	11,101,275	11,466,922
SOUTH COAST.					
<i>Natal.</i>					
Apparel and slops	{ dollars... 381,510	310,554	532,656	459,270	403,866
Ale and beer, in bottles	{ gallons... 52,779	63,258	56,306	64,944	62,329
	{ dollars... 50,058	69,496	57,348	68,040	68,526
Ale and beer, in wood	{ gallons... 95,002	68,292	139,724	136,612	157,385
	{ dollars... 48,600	80,132	58,806	56,778	71,928
Coffee	{ pounds... 91,952	255,448	956,082	678,032	998,256
	{ dollars... 15,066	47,142	105,726	108,378	205,578
Cotton manufactures	{ yards... 3,269,135	3,415,413	3,948,773	2,373,611	2,728,660
	{ dollars... 421,848	415,044	476,766	284,810	276,534
Cotton blankets and sheets	{ pairs... 197,678	146,921	132,679	112,456	82,597
	{ dollars... 190,028	119,526	124,416	87,480	62,208
Flour	{ barrels... 17,413	22,325	26,890	28,160	33,602
	{ dollars... 111,780	185,166	161,352	150,860	238,552
Haberdashery and millinery	{ dollars... 468,018	492,504	635,688	359,640	391,716
Iron of all kinds, n. e. s.	{ dollars... 112,286	152,118	277,992	200,718	185,166
Hardware, cutlery, &c.	{ dollars... 338,256	408,866	418,446	395,604	265,356
Leather manufactures	{ dollars... 196,172	243,486	339,714	261,468	279,450
Linen	{ yards... 272,296	221,331	297,527	216,039	119,780
	{ dollars... 51,030	44,226	58,806	43,254	20,896
Machinery and railway plant	{ dollars... 169,614	122,958	156,006	282,866	922,914
Oilmen's stores	{ dollars... 39,366	89,994	87,966	61,722	95,742
Rice	{ pounds... 2,618,224	3,610,768	4,110,848	4,272,688	5,674,144
	{ dollars... 52,488	115,668	101,068	93,798	121,500
Tea	{ pounds... 125,075	121,855	182,593	190,846	147,383
	{ dollars... 40,338	34,992	51,030	52,002	45,198
Wine	{ gallons... 42,763	52,420	46,138	37,300	51,847
	{ dollars... 82,620	84,564	81,648	58,320	88,452
Woolen manufactures	{ yards... 326,832	191,832	270,459	98,164	152,968
	{ dollars... 116,154	75,830	96,714	46,656	65,124
Woolen blankets	{ pairs... 80,351	66,754	42,852	63,261	31,252
	{ dollars... 190,512	164,268	134,622	187,110	81,648
All other articles	{ dollars... 1,637,998	2,254,195	2,149,763	1,710,677	1,763,218
Total imports	{ dollars... 4,915,720	5,452,561	6,166,553	4,971,245	5,678,574
Cape Colony.					
Agricultural implements	{ dollars... 284,310	185,652	157,464	135,594	112,266
Agricultural machinery	{ dollars... 62,694	21,884	21,870	23,614	84,992
Apparel and slops	{ dollars... 1,685,934	1,419,120	1,474,824	1,687,392	1,139,184
Bags of all kinds	{ number... 1,003,233	1,410,401	920,451	957,418	981,205
	{ dollars... 295,974	382,968	228,140	139,968	215,296
Beer	{ gallons... 449,222	614,270	617,711	724,274	951,180
	{ dollars... 360,846	497,664	432,026	531,684	695,783

* These figures are evidently erroneous, but they are official. Whether the quantity

BRITISH AFRICA.

imported, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
15,233 114,696	34,211 248,532	26,666 166,212	87,792 244,944	50,214 544,320	36,433 327,509	56,669 868,482	.....
144,598,624 2,176,794 253,287 230,570 776,628	..... 2,140,830 84,664 795,582	176,103,024 2,610,793 135,368 121,500 765,450	150,264,240 2,214,216 183,245 166,698 721,224	168,027,440 2,658,494 176,085 174,960 1,146,474	275,900,800* 1,544,022* 180,656 151,632 1,100,790	154,296,232 2,152,494 199,974 149,020 1,138,598	141,061,586 1,868,824 69,059 61,722 549,666
6,085,091 829,022 3,538,595 325,620	3,649,054 304,064 8,795,217 269,780	4,874,899 262,926 6,618,383 458,498	5,894,240 807,638 5,872,053 885,898	7,849,571 541,890 6,173,870 496,776	6,282,498 483,084 5,532,124 512,244	4,805,090 851,894 5,494,014 447,606	3,190,324 251,262 4,556,845 343,902
217,242 235,636 143,856 28,019 667,278 230,480 4,745,032	179,384 359,228 227,834 80,852 634,716 804,722 4,558,584	188,568 368,070 54,432 83,682 538,948 873,248 4,093,590	188,083 275,563 100,116 11,735 307,152 890,258 4,754,003	308,124 462,672 184,194 10,464 838,050 518,076 6,191,869	307,688 631,800 504,468 18,750 815,994 429,624 6,514,817	250,290 418,446 268,758 82,185 1,399,680 516,132 5,523,027	199,746 222,102 29,180 8,890 461,700 516,132 5,523,027
10,806,854 528,708	9,990,070 1,654,958	9,994,172 746,982	10,035,291 2,125,278	13,532,899 199,260	13,823,622 120,528	13,402,675 1,268,244	9,821,448 1,253,888
10,834,622	11,548,728	10,741,154	12,180,569	13,732,159	13,444,150	14,400,919	11,075,823
751,356 177,251 191,084 198,893 88,988 2,772,784 418,100 500,680 184,670 123,650 69,078 467,532 684,862 311,526 372,762 320,274 327,673 62,208 406,810 134,622 7,417,872 185,852 476,207 118,098 50,510 104,978 207,515 79,704 72,856 180,306 2,876,581	1,169,316 147,241 148,836 350,796 149,202 1,074,976 129,702 6,000,625 637,632 193,987 188,996 74,039 414,072 903,960 210,438 474,822 481,140 675,405 126,360 210,068 3 0 010 12,193,552 282,866 354,090 90,882 102,650 198,298 389,707 96,228 119,872 155,034 4,304,684	1,102,248 250,281 298,272 456,826 194,400 1,416,240 193,872 5,403,482 576,058 185,096 141,912 69,994 268,413 972,972 409,212 646,866 551,610 428,061 78,732 302,778 187,110 6,129,872 111,294 230,637 55,404 107,089 221,616 856,035 118,238 176,116 517,104 4,445,188	789,264 174,103 178,848 494,307 212,382 2,171,680 158,716 2,807,444 277,506 121,218 87,966 108,358 617,706 745,524 899,978 455,808 382,968 245,340 45,198 301,320 175,932 17,043,152 240,084 293,021 65,124 53,892 122,958 152,697 62,488 86,974 227,934 3,758,916	1,043,443 153,243 159,408 881,499 162,324 3,316,208 284,768 4,149,678 899,978 224,863 141,426 45,442 278,478 911,836 510,300 580,844 620,196 271,145 47,628 426,708 220,158 9,775,696 123,930 349,202 69,984 41,679 104,490 361,103 102,090 181,212 855,752 4,284,175	696,718 119,331 114,696 827,628 145,314 1,063,552 92,840 3,742,980 841,658 169,281 104,004 89,351 546,261 690,120 236,682 374,220 361,584 215,140 84,020 204,120 191,970 12,649,056 171,558 418,094 75,760 36,550 67,554 317,654 93,796 74,390 208,980 3,769,020	754,272 108,813 112,266 836,235 150,660 3,148,208 803,264 4,172,820 374,220 163,304 85,536 66,474 339,328 687,204 281,394 254,178 378,504 187,746 30,618 731,730 150,174 14,821,888 227,934 844,651 63,180 36,292 63,062 428,164 106,434 74,690 170,596 3,779,977	754,369 99,082 103,032 373,517 164,268 2,096,625 152,118 4,605,746 402,894 213,141 120,042 78,131 348,514 616,248 190,512 234,738 389,286 223,184 36,936 521,964 133,164 11,093,894 186,624 426,968 71,442 25,845 44,226 360,582 90,396 82,784 190,026 2,684,888
8,367,071	10,577,090	11,855,798	9,296,480	10,757,795	8,510,880	8,144,681	7,880,187
120,842 42,282 1,521,666 1,078,092 226,962 705,640 583,628	224,738 50,778 2,328,421 2,297,456 423,306 807,305 636,646	280,422 85,536 2,193,318 1,900,269 319,302 1,050,162 758,646	166,696 82,620 2,689,270 1,817,786 281,890 1,226,897 987,268	142,398 67,554 3,100,680 821,246 1,232,028 861,192	85,536 14,483 993,814 1,850,057 328,060 934,158 861,192	101,088 146,342 1,822,406 323,318 472,887 363,628	149,666 66,562 1,326,294 2,349,686 236,196 511,190 871,790

is greater or the value less than the true imports cannot be assuredly stated.

BRITISH AFRICA—Continued.

Quantities and value of principal articles imported,

Articles.	1873.	1874.	1875.	1876.	1877.
SOUTH COAST—continued.					
Cape Colony—Continued.					
Cabinet and upholstery wares, dollars.					
Coal..... { tons.....	392,202	500,580	450,522	518,562	375,192
..... { dollars.....	35,643	48,474	50,212	65,253	63,153
..... { pounds.....	248,346	860,640	295,768	296,946	281,880
Coffee..... { dollars.....	4,812,224	8,469,472	8,916,168	7,462,960	9,449,216
Grain:	679,428	1,428,384	1,885,586	1,096,612	1,438,610
Wheat..... { bushels.....	49,038	372,464	217,440	168,989	254,990
..... { dollars.....	60,294	571,050	231,836	186,166	402,408
Barley..... { dollars.....	48	379	131	14,094	1,030
Oats..... { dollars.....	486	14,590	34,992	17,962	8,518
Maize..... { dollars.....	3,432	23,814	21,384	34,020	61,236
Flour..... { dollars.....	247,374	675,540	339,228	854,294	1,001,166
Cotton manufactures..... { dollars.....	2,882,466	2,458,188	2,443,122	2,310,814	1,932,748
Haberdashery and millinery..... { dollars.....	3,068,660	2,791,584	2,790,612	2,379,456	2,144,232
Hardware, cutlery, and ironware, dollars.	2,083,068	1,716,066	1,868,456	1,887,624	1,432,728
Iron:					
Bar, bolt, and rod..... { pounds.....	4,953,836	7,242,960	8,156,624	8,501,584	5,001,632
..... { dollars.....	196,774	246,888	228,074	194,400	102,080
Sheet..... { pounds.....	3,522,288	3,870,532	3,328,368	11,711,616	7,754,984
..... { dollars.....	205,092	224,532	466,654	506,106	823,676
Leather manufactures..... { dollars.....	1,287,414	1,204,308	1,394,334	1,551,312	1,107,108
Linen manufactures..... { dollars.....	224,046	237,168	226,154	298,890	238,906
Machinery, not agricultural..... { dollars.....	87,480	90,582	155,520	204,120	278,964
Oilmen's stores..... { dollars.....	391,200	580,284	509,724	525,852	709,560
Rice..... { pounds.....	7,832,134	12,676,320	6,060,504	11,146,240	10,489,360
..... { dollars.....	158,922	376,650	150,174	264,870	249,318
Saddlery and harness..... { dollars.....	389,286	826,106	311,040	277,992	218,300
Spirits:					
Brandy..... { gallons.....	50,376	105,009	46,022	91,623	86,480
..... { dollars.....	141,912	324,162	132,678	286,656	296,880
Whisky..... { gallons.....	2,269	2,545	3,084	6,016	16,667
..... { dollars.....	5,346	4,626	6,818	14,094	34,992
Stationery..... { dollars.....	266,814	284,810	367,210	379,902	336,826
Sugar, raw..... { pounds.....	20,481,200	21,681,264	21,088,640	20,064,848	20,147,344
..... { dollars.....	1,121,688	1,140,642	1,054,620	986,525	1,138,796
Tea..... { pounds.....	908,462	915,816	768,447	723,110	738,127
..... { dollars.....	243,000	191,484	155,520	144,828	138,650
Tobacco:					
Manufactured..... { pounds.....	314,951	277,987	450,258	318,382	397,945
..... { dollars.....	78,246	80,676	121,500	87,480	112,752
Cigars..... { pounds.....	16,579	6,745	11,138	23,527	57,002
..... { dollars.....	158,580	88,938	98,172	106,920	90,396
Wine, French..... { gallons.....	27,869	18,912	22,868	19,954	14,353
..... { dollars.....	80,938	60,750	77,274	81,648	61,722
Wood:					
Deals..... { cub. feet.....	484,192	943,214	1,029,030	973,150	826,291
..... { dollars.....	179,324	395,118	874,220	308,124	261,954
Manufactured..... { dollars.....	53,974	94,658	127,332	181,704	164,368
Woolen manufactures..... { dollars.....	1,510,498	1,437,102	1,297,134	1,096,902	796,068
All other articles..... { dollars.....	5,796,364	6,756,270	7,367,523	7,721,508	8,134,178
Total merchandise..... dollars.....	24,933,292	27,196,147	26,901,010	26,769,915	26,671,632
Specie:					
Gold..... { dollars.....	1,417,030	706,440	959,302	1,301,941	1,374,291
Silver..... { dollars.....	146,043	108,082	56,619	260,010	74,358
Total specie..... { dollars.....	1,563,073	899,472	1,015,921	1,561,951	1,448,649
Total imports..... { dollars.....	26,496,365	28,095,619	28,006,931	28,331,866	27,620,281

BRITISH AFRICA—Continued.

including bullion and specie—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
396, 576	662, 418	940, 896	1, 149, 876	1, 208, 336	577, 368	833, 882	208, 088
115, 479	170, 847	168, 819	218, 700	226, 561	184, 002	163, 076	245, 786
406, 296	668, 736	726, 084	910, 278	885, 492	618, 078	716, 850	1, 065, 592
12, 622, 512	8, 622, 096	10, 711, 008	18, 848, 680	8, 963, 280	9, 242, 128	13, 270, 982	9, 244, 256
1, 613, 520	938, 952	1, 236, 884	1, 296, 648	709, 962	757, 674	1, 372, 834	734, 832
770, 769	348, 432	658, 472	695, 710	949, 148	830, 024	717, 438	873, 198
1, 054, 134	392, 860	756, 702	776, 142	1, 164, 344	1, 140, 156	832, 518	870, 912
41, 796	21, 384	89, 368	168, 156	49, 572	34, 506	466	865
72, 900	49, 086	32, 076	259, 524	8, 262	41, 796	639	29, 160
524, 880	220, 644	285, 768	368, 874	151, 632	192, 942	166, 782	238, 626
945, 756	800, 442	557, 948	910, 506	662, 418	1, 047, 816	678, 942	822, 704
2, 633, 634	3, 520, 088	3, 008, 826	3, 237, 246	3, 008, 826	1, 698, 570	2, 135, 484	2, 040, 228
2, 550, 276	3, 096, 792	3, 470, 040	3, 949, 722	3, 932, 226	2, 297, 808	2, 613, 576	2, 562, 192
1, 473, 066	2, 422, 224	2, 923, 290	3, 591, 054	3, 568, 838	2, 060, 154	1, 882, 184	981, 234
5, 908, 756	8, 008, 112	4, 310, 512	8, 351, 892	5, 114, 144	100, 602	45, 684	54, 432
101, 574	151, 146	166, 698	172, 530	198, 914	12, 283, 936	287, 226	241, 628
6, 718, 768	14, 634, 368	18, 512, 032	15, 639, 456	795, 096	383, 940	1, 878, 866	1, 158, 624
202, 440	607, 014	775, 170	665, 834	2, 441, 178	1, 399, 680	92, 340	115, 182
1, 896, 278	1, 678, 158	1, 937, 196	2, 350, 296	205, 974	141, 912	110, 808	171, 072
253, 692	388, 814	247, 860	302, 292	662, 418	174, 474	1, 008, 450	860, 706
283, 358	830, 966	445, 176	1, 051, 218	1, 514, 370	15, 444, 464	10, 824, 832	11, 631, 760
958, 392	1, 064, 340	1, 030, 806	1, 729, 674	204, 120	304, 722	225, 018	232, 794
17, 036, 992	14, 590, 128	5, 860, 400	18, 724, 160	480, 654	150, 660	126, 360	104, 976
471, 906	384, 426	158, 894	442, 260				
821, 246	524, 394	680, 828	669, 634				
75, 647	86, 939	93, 372	107, 775	122, 068	53, 181	49, 796	39, 384
261, 448	299, 862	331, 452	420, 390	432, 054	208, 008	206, 064	171, 072
23, 734	33, 260	39, 778	74, 326	62, 787	63, 490	81, 849	63, 611
49, 086	67, 068	78, 532	146, 286	122, 958	131, 706	165, 240	128, 790
438, 372	518, 076	559, 872	682, 830	715, 392	528, 282	435, 456	406, 782
29, 904, 784	23, 487, 072	31, 791, 424	34, 144, 688	41, 681, 248	30, 373, 168	29, 871, 968	25, 265, 104
1, 671, 238	1, 528, 724	1, 665, 036	1, 671, 840	1, 964, 898	1, 690, 912	1, 814, 630	688, 408
1, 999, 968	896, 510	1, 087, 481	1, 032, 500	1, 139, 311	1, 137, 519	1, 205, 032	1, 140, 260
854, 780	139, 482	174, 960	162, 324	194, 886	180, 792	190, 512	173, 016
577, 587	819, 037	369, 053	408, 818	368, 594	880, 582	229, 815	145, 541
148, 230	203, 634	110, 898	155, 034	142, 398	130, 734	62, 604	47, 198
110, 527	83, 120	118, 849	143, 079	210, 026	94, 265	48, 059	63, 908
156, 492	127, 832	161, 852	187, 522	248, 000	108, 464	63, 180	72, 900
20, 756	37, 135	38, 762	56, 529	58, 880	20, 802	11, 266	7, 553
86, 994	139, 668	178, 908	276, 562	239, 112	72, 900	40, 824	39, 852
699, 040	1, 567, 191	1, 050, 507	2, 113, 007	1, 879, 249	1, 088, 526	458, 294	751, 869
219, 672	868, 802	268, 272	571, 636	507, 870	257, 580	107, 406	166, 696
179, 334	281, 680	476, 280	636, 660	578, 828	478, 710	208, 980	178, 862
964, 710	1, 858, 870	1, 490, 796	1, 516, 806	1, 918, 242	875, 548	683, 802	751, 916
7, 251, 666	7, 987, 943	8, 744, 471	10, 144, 333	12, 064, 746	10, 812, 180	6, 460, 142	5, 950, 840
29, 897, 461	34, 427, 038	37, 256, 971	44, 846, 233	45, 535, 090	31, 446, 101	25, 510, 425	28, 196, 234
2, 120, 748	2, 822, 087	1, 795, 770	2, 673, 248	1, 288, 682	1, 023, 277	3, 499	974, 169
2, 994	15, 552	278, 478	46, 024	124, 027	.....	53, 373	89, 161
2, 128, 742	2, 637, 589	2, 074, 248	2, 719, 267	1, 412, 709	1, 023, 277	56, 872	1, 068, 370
32, 021, 203	37, 265, 527	39, 831, 219	47, 565, 500	46, 947, 799	32, 469, 378	25, 567, 287	24, 259, 604

BRITISH AFRICA—Continued.

Quantities and values of principal articles imported,

Articles.	1873.	1874.	1875.	1876.	1877.
WEST COAST.					
<i>Lagos.*</i>					
Cotton goods.....dollars.....	890,976	896,464	1,181,466	1,175,148	1,404,540
Cowries.....pounds.....	2,372,808	2,414,048	2,451,344	5,212,816	6,786,976
Geneva.....dollars.....	78,702	67,554	62,208	99,144	162,782
Geneva.....gallons.....	74,749	118,127	120,615	242,532	206,468
Geneva.....dollars.....	42,282	73,872	83,592	134,136	176,904
Guns.....number.....	6,756	11,439	8,789	2,645	16,526
Guns.....dollars.....	16,524	24,786	10,692	5,832	33,048
Gunpowder.....barrels.....	460	877	1,693	1,872	4,154
Gunpowder.....dollars.....	4,800	8,262	14,580	16,038	37,422
Hardware.....dollars.....	13,808	30,618	38,394	38,890	35,915
Rum.....gallons.....	264,042	323,900	443,809	542,782	1,009,467
Rum.....dollars.....	104,976	137,052	173,988	199,746	347,220
Shooks.....bundles.....	6,845	7,418	13,485	14,616	17,331
Shooks.....dollars.....	21,076	29,646	51,516	52,488	63,180
Tobacco.....pounds.....	457,431	711,025	1,309,196	1,307,155	1,401,517
Tobacco.....dollars.....	73,872	90,396	149,202	169,614	163,296
All other articles.....dollars.....	11,330	345,721	468,684	426,285	560,478
Total imports.....dollars.....	1,258,176	1,694,371	2,234,322	2,317,311	2,985,785
<i>Gold Coast.</i>					
Cotton goods.....dollars.....				953,046	493,280
Geneva.....gallons.....				87,990	32,830
Geneva.....dollars.....				31,104	24,494
Gun powder.....pounds.....					673
Gun powder.....dollars.....					68
Haberdashery and millinery.....dollars.....				75,330	69,498
Hardware and cutlery.....dollars.....				107,406	65,610
Rum.....gallons.....				302,236	469,081
Rum.....dollars.....				209,952	256,122
Silk goods.....dollars.....				34,020	52,402
Tobacco, unmanufactured.....pounds.....				301,009	368,467
Tobacco, unmanufactured.....dollars.....				66,582	76,788
Wines, liquors, &c.....gallons.....				11,655	12,028
Wines, liquors, &c.....dollars.....				23,814	14,094
All other articles.....dollars.....				564,410	423,004
Total merchandise.....dollars.....				2,005,664	1,475,370
Specie.....dollars.....				162,324	115,182
Total imports.....dollars.....				2,167,988	1,590,552
<i>Sierra Leone.</i>					
Ale and beer.....dollars.....				15,163	13,608
Apparel.....dollars.....				15,006	13,122
Beads.....dollars.....					
Cotton goods.....dollars.....				490,800	962,224
Flour and bread.....dollars.....					
Gunpowder.....dollars.....				19,926	46,170
Haberdashery.....dollars.....				61,723	57,834
Hardware.....dollars.....				45,684	52,488
Hats and caps.....dollars.....				17,496	12,150
Lumber.....dollars.....				6,804	13,122
Kerosene.....gallons.....					
Kerosene.....dollars.....					
Rice.....pounds.....					
Rice.....dollars.....					
Spirits: Geneva.....gallons.....				230,385	213,280
Spirits: Geneva.....dollars.....				130,220	113,724
Rum.....gallons.....				1,006,422	758,708
Rum.....dollars.....				170,586	198,260
Tobacco, unmanufactured.....pounds.....				227,622	235,539
Tobacco, unmanufactured.....dollars.....					
All other articles.....dollars.....					
Total merchandise.....dollars.....				1,400,375	1,905,771
Specie.....dollars.....				194	
Total imports.....dollars.....				1,400,569	1,905,771

* Including goods in transit.

BRITISH AFRICA—Continued.

including bullion and specie—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
942,844	826,686	688,176	495,720	914,166	1,118,286	1,093,986	941,788
10,017,804	7,565,688	3,598,112	1,853,184	1,090,070	1,782,816	1,522,796	1,479,408
90,630	170,100	87,966	30,618	29,646	43,254	84,992	32,962
264,140	433,977	446,162	438,222	502,607	732,685	1,105,668	1,369,912
178,302	308,610	221,532	231,336	300,818	361,098	497,278	597,294
8,639	8,412	20,404	7,768	2,088	3,690	5,947	12,040
16,524	29,646	34,992	14,560	3,883	6,804	9,914	29,160
1,877	848	839	1,761	1,726	2,688	3,422	1,805
16,524	8,748	7,290	8,608	25,758	19,926	29,160	14,094
35,964	29,674	32,562	24,786	21,894	48,114	54,432	75,330
839,100	1,230,640	568,197	685,738	419,848	849,536	831,122	407,884
286,250	357,210	219,672	261,954	147,258	116,156	106,864	120,042
10,130	7,540	9,996	9,037	12,407	14,887	9,038	12,126
42,281	34,992	44,226	86,450	50,778	94,770	42,768	57,348
1,412,867	1,310,922	1,200,164	1,151,687	1,188,835	1,077,617	1,261,623	1,122,201
156,006	146,786	117,126	118,584	171,220	112,410	136,560	137,052
576,082	653,503	523,276	391,952	437,938	582,359	607,594	631,561
2,850,408	2,565,458	1,979,618	1,614,588	2,071,371	2,507,415	2,615,554	2,636,561
607,014	620,620	643,950	641,144	.....	.....	.....	.....
34,501	28,692	.....	28,485	.....	.....	.....	.....
25,758	24,300	85,022	29,646	.....	.....	.....	.....
111,158	99,497	80,453	108,898	.....	.....	.....	.....
15,552	11,664	8,748	12,636	.....	.....	.....	.....
65,610	31,104	32,560	17,982	.....	.....	.....	.....
75,830	12,836	52,002	75,330	.....	.....	.....	.....
494,805	454,702	608,469	507,027	.....	.....	.....	.....
281,854	240,579	149,658	812,498	.....	.....	.....	.....
39,366	85,534	16,524	22,842	.....	.....	.....	.....
354,795	278,000	279,701	452,491	.....	.....	.....	.....
75,330	46,114	23,328	73,872	.....	.....	.....	.....
10,855	12,825	5,048	14,578	.....	.....	.....	.....
16,524	14,094	14,580	24,094	.....	.....	.....	.....
540,690	421,021	569,437	552,383	.....	.....	.....	.....
1,723,128	1,459,657	1,545,969	1,765,427	.....	.....	.....	.....
192,456	110,312	93,156	169,456	.....	.....	.....	.....
1,915,584	1,569,969	1,639,025	1,934,883	.....	.....	.....	.....
19,440	16,038	19,440	14,580	.....	.....	.....	.....
13,608	14,580	10,050	10,208	.....	.....	.....	.....
.....	23,272	29,646	21,870	.....	.....	.....	.....
1,264,572	744,068	875,370	745,524	.....	.....	.....	.....
.....	46,170	57,348	41,810	.....	.....	.....	.....
36,450	37,908	26,730	14,094	.....	.....	.....	.....
96,506	71,928	77,760	161,088	.....	.....	.....	.....
77,760	68,040	79,704	55,404	.....	.....	.....	.....
20,412	10,692	12,636	15,552	.....	.....	.....	.....
14,560	15,552	15,066	9,234	.....	.....	.....	.....
.....	44,250	81,530	182,930	.....	.....	.....	.....
.....	8,282	13,608	28,674	.....	.....	.....	.....
.....	4,205,264	5,165,664	2,030,224	.....	.....	.....	.....
.....	183,184	141,912	86,378	.....	.....	.....	.....
.....	76,407	87,515	51,710	.....	.....	.....	.....
.....	56,862	74,358	38,880	.....	.....	.....	.....
322,146	326,330	423,184	251,846	.....	.....	.....	.....
157,404	168,156	165,726	122,472	.....	.....	.....	.....
844,672	929,005	1,675,071	902,572	.....	.....	.....	.....
260,010	130,248	227,448	121,014	.....	.....	.....	.....
313,664	473,764	510,873	357,240	.....	.....	.....	.....
2,532,366	1,990,086	2,305,185	1,758,732	.....	.....	.....	.....
5,005	.....	85,901	60,730	.....	.....	.....	.....
2,587,371	1,990,086	2,391,086	1,819,462	.....	.....	.....	.....

BRITISH AFRICA—Continued.

Quantities and values of principal articles imported,

Articles.	1873.	1874.	1875.	1876.	1877.
WEST COAST.					
<i>Lagos.*</i>					
Cotton goods	dollars 890, 976	886, 464	1, 181, 466	1, 175, 148	1, 464, 540
Cowries	pounds 2, 872, 608	2, 414, 048	2, 461, 344	5, 212, 616	6, 786, 976
Geneva	dollars 78, 702	67, 554	62, 208	99, 144	162, 782
Gunpowder	gallons 74, 749	118, 127	120, 615	242, 532	296, 468
Guns	dollars 42, 282	73, 872	83, 592	134, 196	176, 904
Hardware	number 6, 756	11, 439	8, 789	2, 645	16, 526
Rum	dollars 16, 524	24, 786	10, 692	5, 632	33, 048
Shooks	barrels 469	877	1, 693	1, 872	4, 154
Tobacco	dollars 4, 800	8, 262	14, 580	16, 038	37, 422
All other articles	dollars 13, 608	30, 618	38, 394	38, 880	35, 915
Total imports	dollars 264, 042	323, 900	443, 809	542, 782	1, 009, 467
	dollars 104, 976	137, 052	173, 988	199, 746	347, 220
	bundles 6, 845	7, 418	13, 485	14, 616	17, 331
	dollars 21, 076	29, 646	51, 516	52, 488	63, 180
	pounds 457, 431	711, 025	1, 369, 196	1, 807, 155	1, 401, 517
	dollars 73, 872	90, 296	140, 202	169, 614	103, 296
	dollars 11, 330	845, 721	468, 664	426, 285	560, 478
Total imports	dollars 1, 258, 176	1, 694, 871	2, 234, 323	2, 817, 311	2, 985, 785
<i>Gold Coast.</i>					
Cotton goods	dollars .....	.....	.....	953, 046	493, 290
Geneva	gallons .....	.....	.....	87, 990	32, 830
Gun powder	dollars .....	.....	.....	31, 104	24, 494
Haberdashery and millinery	pounds .....	.....	.....	.....	673
Hardware and outlery	dollars .....	.....	.....	.....	68
Rum	dollars .....	.....	.....	75, 380	69, 498
Silk goods	dollars .....	.....	.....	107, 406	65, 610
Tobacco, unmanufactured	gallons .....	.....	.....	302, 236	469, 081
Wines, liquors, &c	dollars .....	.....	.....	209, 952	256, 122
All other articles	dollars .....	.....	.....	34, 020	52, 402
Total merchandise	pounds .....	.....	.....	801, 009	368, 467
Specie	dollars .....	.....	.....	68, 582	76, 788
	dollars .....	.....	.....	11, 655	12, 028
	dollars .....	.....	.....	23, 814	14, 094
	dollars .....	.....	.....	564, 410	423, 004
Total merchandise	dollars .....	.....	.....	2, 005, 664	1, 475, 370
Specie	dollars .....	.....	.....	162, 824	115, 182
Total imports	dollars .....	.....	.....	2, 167, 988	1, 590, 552
<i>Sierra Leone.</i>					
Ale and beer	dollars .....	.....	.....	15, 163	13, 608
Apparel	dollars .....	.....	.....	15, 060	13, 122
Beads	dollars .....	.....	.....	.....	.....
Cotton goods	dollars .....	.....	.....	490, 800	962, 224
Flour and bread	dollars .....	.....	.....	.....	.....
Gunpowder	dollars .....	.....	.....	19, 926	46, 170
Haberdashery	dollars .....	.....	.....	61, 722	57, 834
Hardware	dollars .....	.....	.....	45, 684	52, 488
Hats and caps	dollars .....	.....	.....	17, 496	12, 150
Lumber	dollars .....	.....	.....	6, 804	13, 122
Kerosene	gallons .....	.....	.....	.....	.....
Rice	dollars .....	.....	.....	.....	.....
Spirits: Geneva	pounds .....	.....	.....	.....	.....
Rum	dollars .....	.....	.....	230, 385	213, 260
Tobacco, unmanufactured	dollars .....	.....	.....	126, 220	113, 724
All other articles	pounds .....	.....	.....	1, 006, 422	758, 798
	dollars .....	.....	.....	170, 586	199, 260
	dollars .....	.....	.....	227, 622	235, 539
Total merchandise	dollars .....	.....	.....	1, 400, 375	1, 905, 771
Specie	dollars .....	.....	.....	194	.....
Total imports	dollars .....	.....	.....	1, 400, 569	1, 905, 771

* Including goods in transit.

BRITISH AFRICA—Continued.

including bullion and specie—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
942,844	826,686	688,176	495,720	914,165	1,118,286	1,093,986	941,788
10,017,804	7,565,688	3,598,112	1,853,184	1,090,070	1,782,816	1,522,796	1,479,408
90,630	170,100	87,966	80,618	29,646	43,254	34,992	32,862
264,140	433,977	456,162	488,222	502,607	782,685	1,105,698	1,369,912
178,302	308,610	221,532	231,336	300,818	361,098	497,278	597,294
8,659	8,412	20,404	7,758	2,038	3,690	5,947	12,040
10,524	29,646	34,992	14,560	3,883	6,804	9,914	29,160
1,877	848	839	1,761	1,726	2,688	3,422	1,805
16,524	8,748	7,290	8,608	25,758	19,926	29,160	14,094
35,964	29,674	32,562	24,786	21,384	48,114	54,432	75,830
839,160	1,250,640	568,197	685,738	419,348	849,536	831,122	407,884
280,254	357,210	219,672	261,954	147,258	116,154	106,864	120,042
10,130	7,549	9,996	9,037	12,407	14,887	9,038	12,126
42,281	34,992	44,226	80,450	59,778	94,770	42,768	57,848
1,412,867	1,349,922	1,200,164	1,151,687	1,188,835	1,077,617	1,261,623	1,122,201
158,006	140,280	117,126	118,584	171,220	112,610	136,560	137,052
578,082	653,503	523,276	891,952	437,938	582,359	607,584	631,501
2,850,408	2,565,458	1,979,818	1,614,588	2,071,371	2,507,415	2,615,554	2,636,561
607,014	620,620	643,950	644,144	.....	.....	.....	.....
34,501	23,692	.....	38,485	.....	.....	.....	.....
25,758	24,300	35,022	29,646	.....	.....	.....	.....
111,158	93,497	80,453	108,893	.....	.....	.....	.....
15,552	11,464	8,748	12,636	.....	.....	.....	.....
65,610	31,104	32,500	17,982	.....	.....	.....	.....
75,830	12,638	52,002	75,830	.....	.....	.....	.....
494,803	454,702	606,469	507,027	.....	.....	.....	.....
261,954	240,570	149,688	312,498	.....	.....	.....	.....
39,386	35,534	16,524	22,842	.....	.....	.....	.....
854,795	278,000	279,701	462,491	.....	.....	.....	.....
75,830	48,114	23,823	73,872	.....	.....	.....	.....
19,955	12,825	5,048	14,573	.....	.....	.....	.....
16,524	14,094	14,580	24,094	.....	.....	.....	.....
540,690	421,021	509,437	552,383	.....	.....	.....	.....
1,723,128	1,459,657	1,545,869	1,765,427	.....	.....	.....	.....
192,456	110,312	93,156	169,456	.....	.....	.....	.....
1,915,584	1,569,969	1,639,025	1,934,883	.....	.....	.....	.....
19,440	16,038	19,440	14,580	.....	.....	.....	.....
13,608	14,580	10,050	10,206	.....	.....	.....	.....
.....	23,272	29,646	21,870	.....	.....	.....	.....
1,264,572	744,068	875,370	745,524	.....	.....	.....	.....
.....	46,170	57,348	41,810	.....	.....	.....	.....
38,450	37,908	26,730	14,094	.....	.....	.....	.....
98,508	71,928	77,760	161,068	.....	.....	.....	.....
77,760	68,040	79,704	55,404	.....	.....	.....	.....
20,412	10,692	12,636	15,562	.....	.....	.....	.....
14,560	15,552	15,066	9,234	.....	.....	.....	.....
.....	44,250	81,530	182,930	.....	.....	.....	.....
.....	8,292	13,608	28,674	.....	.....	.....	.....
.....	4,205,264	5,165,664	2,030,214	.....	.....	.....	.....
.....	183,164	141,912	86,376	.....	.....	.....	.....
.....	76,407	87,515	51,710	.....	.....	.....	.....
.....	59,802	74,858	38,880	.....	.....	.....	.....
322,146	326,330	423,184	251,840	.....	.....	.....	.....
157,484	168,156	165,726	122,472	.....	.....	.....	.....
844,672	929,005	1,675,071	962,572	.....	.....	.....	.....
260,010	130,248	227,448	121,014	.....	.....	.....	.....
313,664	473,764	510,873	357,240	.....	.....	.....	.....
2,552,366	1,990,086	2,305,185	1,758,732	.....	.....	.....	.....
5,905	.....	85,901	60,730	.....	.....	.....	.....
2,557,371	1,990,086	2,391,086	1,819,462	.....	.....	.....	.....

BRITISH AFRICA—Continued.

Quantities and values of principal articles imported,

Articles.	1873.	1874.	1875.	1876.	1877.
WEST COAST—Continued.					
<i>Gambia.</i>					
Ale and porter				8,844	6,318
Amber and coral				1,448	996
Beads				695	1,074
Bread and biscuit				8,149	4,277
Cocoanuts				90,882	74,846
Cotton goods				82,000	98,658
Gunpowder				4,181	8,748
Guns and pistols				8,262	11,178
Hardware				7,776	9,574
Rice				49,572	40,824
Spirits: Rum				17,406	17,982
Sugar				51,699	71,714
				8,737	5,832
Tobacco				359,550	305,406
				67,556	52,488
Wine				12,686	19,574
				7,280	11,664
All other articles				85,832	107,749
Total imports				434,270	452,208
<i>Recapitulation.</i>					
Mauritius:					
Merchandise	10,530,167	11,799,149	8,919,675	8,783,541	10,640,236
Specie	1,396,764	759,132	1,747,170	2,317,734	826,686
Total imports	11,926,931	12,558,281	10,666,845	11,101,275	11,466,922
Natal:					
Merchandise	4,915,720	5,452,551	6,166,553	4,971,245	5,673,574
Specie					
Total imports	4,915,720	5,452,551	6,166,553	4,971,245	5,673,574
Cape Colony:					
Merchandise	24,633,292	27,196,147	26,991,010	26,769,915	28,071,632
Specie	1,863,073	809,472	1,015,921	1,561,951	1,448,649
Total imports	26,496,365	28,005,619	28,006,931	28,331,866	27,520,281
Lagos:					
Merchandise	1,258,176	1,694,871	2,216,583	2,304,481	2,957,111
Specie			17,739	12,830	28,674
Total imports	1,258,176	1,694,871	2,234,322	2,317,311	2,985,785
Gold Coast:					
Merchandise				2,005,664	1,475,370
Specie				162,324	115,162
Total imports				2,167,988	1,590,532
Sierra Leone:					
Merchandise				1,400,375	1,905,771
Specie				194	
Total imports				1,400,569	1,905,771
Gambia:					
Merchandise				434,270	452,208
Specie					
Total imports				434,270	452,208
Total for British Africa:					
Merchandise				46,669,491	49,175,902
Specie				4,055,073	2,419,191
Total imports				50,724,564	51,595,093

BRITISH AFRICA—Continued.

including bullion and specie—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
5,882	7,776	8,748	6,804	.....	.....	.....	.....
2,969	5,346	7,776	6,804	.....	.....	.....	.....
8,922	8,319	4,680	4,530	.....	.....	.....	.....
4,471	6,804	9,234	4,554	.....	.....	.....	.....
110,822	128,390	133,650	141,426	.....	.....	.....	.....
173,316	206,068	183,708	136,080	.....	.....	.....	.....
16,038	10,692	4,645	7,776	.....	.....	.....	.....
81,560	22,842	33,048	11,178	.....	.....	.....	.....
13,122	18,468	13,608	6,804	.....	.....	.....	.....
73,886	96,228	120,042	60,064	.....	.....	.....	.....
36,986	18,954	49,572	23,328	.....	.....	.....	.....
120,130	160,434	182,117	108,924	.....	.....	.....	.....
9,210	11,178	14,294	7,921	.....	.....	.....	.....
364,642	381,174	326,891	242,813	.....	.....	.....	.....
57,834	50,058	47,142	34,506	.....	.....	.....	.....
23,405	28,062	27,613	21,819	.....	.....	.....	.....
12,150	17,496	18,468	15,552	.....	.....	.....	.....
250,515	359,753	282,949	225,676	.....	.....	.....	.....
901,613	953,372	931,564	692,903	.....	.....	.....	.....
10,805,854	9,990,070	9,994,172	10,055,291	13,532,899	13,823,622	13,402,675	9,821,443
528,768	1,556,658	746,962	2,125,278	199,280	120,528	994,244	1,253,890
10,834,622	11,546,728	10,741,154	12,180,569	13,782,159	13,444,150	14,400,919	11,075,823
8,357,071	10,577,090	11,855,798	9,296,480	10,757,795	8,510,880	8,144,631	7,380,187
8,357,071	10,577,090	11,855,798	9,296,480	10,757,795	8,510,880	8,144,631	7,380,187
29,897,461	34,427,938	37,256,971	44,846,233	45,535,090	31,446,101	25,510,425	23,196,234
2,123,742	2,837,580	2,074,248	2,719,287	1,412,709	1,023,277	56,862	1,063,370
32,031,203	37,265,527	39,331,219	47,565,500	46,947,799	32,469,378	25,567,287	24,259,604
2,200,234	2,459,996	1,904,002	1,554,810	1,888,149	2,368,905	2,421,554	2,544,707
150,174	105,462	75,816	59,778	183,222	138,510	194,000	91,854
2,350,498	2,565,458	1,979,818	1,614,588	2,071,371	2,507,415	2,615,554	2,696,561
1,723,128	1,459,657	1,545,867	1,765,527	.....	.....	.....	.....
192,456	110,812	93,156	169,356	.....	.....	.....	.....
1,915,584	1,569,969	1,639,023	1,934,883	.....	.....	.....	.....
2,552,366	1,990,080	2,305,178	1,758,732	.....	.....	.....	.....
5,005	.....	85,908	60,730	.....	.....	.....	.....
2,557,371	1,990,086	2,391,086	1,810,462	.....	.....	.....	.....
901,613	815,348	825,130	605,423	.....	.....	.....	.....
.....	138,024	106,434	87,480	.....	.....	.....	.....
901,613	953,372	931,564	692,903	.....	.....	.....	.....
55,887,727	61,720,185	65,187,118	69,882,496	.....	.....	.....	.....
3,000,145	4,744,045	3,182,544	5,221,889	.....	.....	.....	.....
58,887,872	66,468,230	68,369,662	75,104,385	.....	.....	.....	.....

BRITISH AFRICA—Continued.

Quantities and value of principal

Articles.		1873.	1874.	1875.	1876.	1877.
EAST COAST.						
Mauritius.						
Cotton manufactures, plain	{ yards	3, 213, 770	3, 333, 844	2, 984, 783	1, 827, 211	572, 805
	{ dollars	189, 054	192, 942	132, 678	107, 892	83, 534
Oil, cocoanut	{ gallons	114, 896	125, 532	271, 970	157, 612	216, 445
	{ dollars	77, 760	83, 593	136, 680	86, 994	167, 670
Rum	{ gallons	938, 519	879, 201	895, 116	1, 010, 414	1, 000, 534
	{ dollars	236, 196	244, 458	225, 618	248, 346	245, 434
Sugar	{ pounds	251, 817, 440	212, 741, 984	198, 611, 615	263, 052, 272	309, 509, 424
	{ dollars	14, 083, 794	11, 266, 452	9, 521, 712	13, 238, 294	18, 598, 838
All other articles	{ dollars	1, 153, 278	1, 324, 836	1, 096, 902	1, 172, 329	998, 998
Total merchandise	{ dollars	15, 740, 082	13, 112, 280	11, 112, 390	14, 848, 855	19, 820, 470
Specie	{ dollars	664, 363	1, 566, 864	1, 145, 016	1, 061, 910	597, 780
Total exports	{ dollars	16, 404, 444	14, 679, 144	12, 257, 406	15, 910, 765	20, 418, 250
Total domestic products	{ dollars				13, 726, 079	18, 626, 114
Total foreign products	{ dollars				2, 184, 686	1, 592, 136
SOUTH COAST.						
Natal.						
Arrowroot	{ pounds	120, 512	135, 672	193, 312	207, 424	315, 840
	{ dollars	6, 974	10, 818	11, 300	18, 489	22, 160
Grain, maize	{ tons	86	173	246	376	
	{ dollars	8, 319	6, 028	6, 804	9, 234	11, 689
Hair, Angora	{ pounds	9, 578	11, 905	28, 025	31, 258	69, 806
	{ dollars	1, 740	2, 760	7, 290	7, 144	17, 010
Hides	{ number	128, 354	208, 005	329, 974	201, 698	154, 707
	{ dollars	288, 190	428, 652	628, 254	217, 242	170, 100
Ivory	{ pounds	49, 986	27, 678	27, 792	29, 172	43, 110
	{ dollars	83, 592	43, 740	45, 684	53, 460	72, 900
Ostrich feathers	{ pounds	1, 535	387	756	747	272
	{ dollars	28, 674	15, 068	19, 922	12, 636	6, 904
Skins of all kinds	{ number	898, 916	893, 058	282, 878	141, 016	94, 765
	{ dollars	446, 634	427, 680	244, 458	64, 638	40, 338
Sugar, raw	{ pounds	18, 204, 483	17, 816, 736	18, 917, 280	20, 742, 512	20, 402, 256
	{ dollars	789, 750	773, 226	796, 068	650, 968	698, 128
Wool	{ pounds	6, 809, 513	7, 889, 994	8, 109, 447	8, 560, 177	10, 012, 356
	{ dollars	1, 230, 552	1, 647, 054	1, 891, 998	1, 780, 218	1, 861, 380
All other articles	{ dollars	333, 171	387, 843	508, 450	371, 866	252, 021
Total domestic products	{ dollars	8, 212, 596	8, 742, 865	4, 061, 249	8, 194, 915	8, 352, 510
Total foreign products	{ dollars				848, 462	222, 102
Total exports	{ dollars				8, 543, 377	8, 574, 612
Cape Colony.						
Copper ore	{ tons	12, 958	15, 295	13, 908	14, 413	17, 073
	{ dollars	1, 517, 292	1, 562, 480	1, 207, 710	1, 249, 992	1, 475, 496
Feathers, ostrich	{ pounds	31, 581	86, 529	49, 569	59, 941	85, 496
	{ dollars	776, 142	1, 019, 216	1, 481, 814	1, 657, 260	1, 911, 926
Fish, cured	{ pounds	3, 967, 243	4, 872, 814	8, 872, 940	8, 593, 376	2, 324, 944
	{ dollars	136, 566	166, 698	86, 508	115, 182	92, 340
Hair, Angora	{ pounds	765, 719	1, 038, 670	1, 147, 453	1, 323, 028	1, 483, 774
	{ dollars	223, 074	520, 506	647, 352	554, 040	565, 704
Hides, ox and cow	{ number	53, 120	71, 162	111, 308	46, 809	56, 548
	{ dollars	211, 896	247, 860	193, 428	104, 976	155, 520
Ivory	{ pounds	91, 457	73, 747	143, 682	161, 234	137, 660
	{ dollars	158, 436	129, 762	293, 544	284, 796	246, 402
Skins:						
Goat	{ number	1, 373, 278	1, 471, 061	1, 300, 624	804, 551	998, 558
	{ dollars	917, 569	944, 784	769, 824	441, 774	679, 796
Sheep	{ number	1, 457, 821	1, 462, 967	1, 558, 623	1, 550, 344	1, 498, 000
	{ dollars	698, 362	702, 756	718, 308	615, 276	682, 772
Wine, colonial	{ gallons	75, 199	77, 802	55, 519	57, 981	76, 292
	{ dollars	70, 470	77, 274	62, 208	58, 320	69, 012
Wool	{ pounds	40, 394, 326	42, 620, 481	40, 339, 674	34, 861, 389	36, 020, 671
	{ dollars	13, 173, 030	14, 830, 196	13, 879, 674	11, 078, 454	10, 851, 408
All other articles	{ dollars	1, 109, 669	874, 694	1, 108, 185	848, 312	1, 053, 413
Total merchandise	{ dollars	18, 092, 525	20, 575, 136	20, 448, 555	17, 008, 382	17, 632, 791

BRITISH AFRICA—Continued.

exports, including bullion and specie.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
588,341	569,882	596,586	395,563	622,791	487,032	1,378,041	355,589
32,076	47,628	34,506	19,440	62,208	29,160	75,816	18,954
253,543	188,745	233,804	175,409	131,375	58,280	122,818	241,145
181,278	111,790	60,765	81,162	89,360	22,356	42,768	115,182
962,514	949,321	689,323	845,139	923,770	552,248	706,988	825,269
220,644	190,026	153,576	214,336	392,638	249,318	218,214	236,196
292,745,376	236,647,856	247,063,648	249,769,536	264,722,080	258,879,040	280,341,264	256,931,136
16,572,880	13,327,578	15,031,008	15,477,156	17,068,826	16,937,586	17,860,406	15,163,686
1,065,900	1,305,623	1,568,108	1,269,953	1,647,492	1,216,126	1,012,129	1,048,492
18,072,778	14,982,635	16,847,948	16,996,037	19,210,574	18,454,546	18,709,333	16,582,510
283,284	843,780	923,000	862,070	322,218	156,975	447,606	279,450
18,358,062	15,826,415	17,771,848	17,358,107	19,532,792	18,611,521	19,156,939	16,861,960
16,894,024	18,668,069	15,211,586	15,868,031	.....	.....	.....	.....
1,474,038	2,158,326	2,559,763	1,490,076	.....	.....	.....	.....
381,360	258,832	161,952	166,992	120,004	229,935	218,624	139,104
33,247	17,530	13,724	13,924	10,206	16,038	16,135	11,275
.....	321	1,096	44	485	5,696	4,070	.....
62,694	4,622	22,016	1,351	14,094	91,770	81,110	67,068
111,015	122,117	303,293	203,361	242,018	319,988	446,813	405,624
31,590	23,814	62,966	46,656	63,666	73,386	93,798	68,610
136,595	156,893	232,618	210,772	251,252	229,635	330,169	338,836
155,529	169,614	232,794	255,150	292,572	257,580	396,034	440,316
87,136	34,150	28,871	13,966	14,090	11,764	12,179	11,791
58,808	42,281	34,020	19,926	24,786	25,785	23,328	18,928
992	1,857	1,106	1,828	3,247	2,596	3,563	2,167
21,870	45,684	48,114	57,034	97,686	70,470	57,884	86,886
78,361	52,118	67,346	86,545	101,979	90,157	265,362	345,970
26,244	12,636	16,038	17,962	24,786	25,758	71,443	70,956
16,639,616	6,742,512	26,219,964	19,240,114	9,276,624	14,233,736	26,399,856	25,282,432
683,746	277,020	1,045,872	837,378	411,642	593,406	899,596	700,326
12,077,900	12,029,216	15,283,019	12,578,781	14,056,126	15,826,915	17,330,981	17,906,044
2,078,622	2,021,274	2,572,398	2,191,374	2,839,604	2,523,312	2,543,724	2,294,406
252,680	222,359	281,661	291,890	277,550	854,785	470,500	554,748
3,373,772	2,836,835	4,329,623	3,732,665	3,556,662	4,083,290	4,655,491	4,261,567
172,044	214,326	249,804	251,664	.....	.....	.....	.....
3,545,616	3,051,161	4,579,427	3,987,329	.....	.....	.....	.....
14,158	15,879	17,157	14,710	22,165	25,398	22,790	22,639
1,227,150	1,379,754	1,492,048	1,268,946	1,914,840	2,206,926	1,977,244	1,674,502
81,226	96,582	163,665	193,612	253,954	247,179	233,411	251,084
2,476,634	2,177,468	4,051,296	4,845,792	5,316,800	4,526,604	4,630,190	2,674,558
2,594,946	3,964,881	4,183,420	4,407,226	4,066,787	4,251,767	2,741,966	2,906,490
102,546	126,860	134,136	162,324	127,818	107,893	78,732	77,274
1,358,385	1,218,116	2,590,232	4,146,128	3,776,557	4,433,371	4,829,359	5,351,301
529,824	635,898	1,003,690	1,276,122	1,230,066	1,320,948	1,164,456	991,446
153,848	104,801	56,814	115,005	110,532	142,945	207,226	200,010
306,634	190,046	124,902	242,514	281,394	399,006	514,674	626,454
149,701	79,225	56,779	50,442	10,263	11,915	10,487	9,244
243,972	115,668	82,523	82,620	19,420	27,753	18,934	17,637
968,669	687,670	803,697	906,473	1,094,628	1,158,873	1,127,714	1,302,130
471,420	358,182	523,936	496,720	574,938	597,789	562,802	501,532
1,676,626	1,490,375	1,641,628	1,851,449	2,007,212	2,185,489	2,319,954	2,625,216
664,848	673,110	837,378	898,614	1,108,706	1,123,632	1,039,068	832,036
65,092	72,569	61,859	48,740	44,018	115,499	89,968	83,754
60,264	68,526	58,806	56,662	50,058	104,490	77,274	70,856
32,127,167	40,087,595	42,467,962	42,770,244	41,689,110	38,029,405	37,270,615	34,432,562
9,180,540	10,481,076	11,806,884	10,604,034	10,022,292	9,684,522	9,481,672	6,880,846
1,142,770	1,269,556	993,037	1,054,725	1,597,456	1,399,497	1,569,230	1,316,703
16,797,802	18,495,634	21,107,636	20,488,273	22,238,798	21,430,049	20,113,796	16,213,958

BRITISH AFRICA—Continued.

Quantities and value of principal exports,

Articles.	1873.	1874.	1875.	1876.	1877.
SOUTH COAST—continued.					
<i>Cape Colony—continued.</i>					
Specie:					
Gold.....dollars.....	484,542	1,112,940	879,660	650,016	127,818
Silver.....dollars.....	17,982	80,182	23,528	7,484	10,352
Total specie.....dollars.....	502,524	1,143,072	902,980	666,500	138,170
Total domestic products.....dollars.....	19,495,049	21,718,208	21,851,535	17,674,883	17,771,961
Total foreign products.....dollars.....				1,152,906	594,658
Total exports.....dollars.....				18,827,188	18,356,619
WEST COAST.					
<i>Lagos.</i>					
Cowries.....dollars.....					
Gin.....gallons.....					
Kola nuts.....dollars.....					
Palm kernels.....tons.....				84,037	84,577
Palm oil.....dollars.....				1,613,034	1,743,796
Palm oil.....gallons.....				1,992,468	3,304,967
Rum.....dollars.....				936,522	1,162,626
Tobacco.....pounds.....					
All other articles.....dollars.....				460,091	665,859
Products of the colony.....dollars.....					
Foreign products.....dollars.....					
Total exports.....dollars.....				3,009,647	3,570,681
<i>Gold Coast.</i>					
Gum copal.....pounds.....					241,920
Ivory and elephants' teeth.....dollars.....				19,343	15,086
Palm oil.....dollars.....				3,052	4,126
Palm oil.....gallons.....				3,865,007	
Palm-nut kernels.....dollars.....				1,487,160	1,264,086
Palm-nut kernels.....tons.....				8,574	8,786
Skins, monkey.....dollars.....				328,536	304,236
All other articles.....number.....				18,269	25,427
All other articles.....dollars.....				7,435	7,435
Total merchandise.....dollars.....				52,482	56,426
Bullion and specie:					
Gold dust.....dollars.....				1,898,008	1,651,375
Produce of the colony.....dollars.....				269,980	185,647
Foreign products.....dollars.....				2,167,968	1,837,022
Total exports.....dollars.....				61,236	43,740
<i>Sierra Leone.</i>					
Benni seed.....dollars.....				21,870	28,160
Cola nuts.....dollars.....				101,088	86,022
Cotton goods (re-exports).....dollars.....				170,586	208,494
Ginger.....pounds.....				2,120,132	2,468,763
Ground nuts.....dollars.....				102,546	93,798
Gum copal.....dollars.....				94,284	100,622
Hides.....pounds.....				579,098	489,058
Palm kernels.....dollars.....				53,460	60,750
Palm kernels.....dollars.....				17,982	62,208
Palm kernels.....dollars.....				423,306	706,158

BRITISH AFRICA—Continued.

including bullion and specie—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
371,804 501	1,272,884 637	711,892 8,096	1,012,824 68	248,832 17,496	2,061,612 1,652	400,950 17,204	1,806,462 129,746
871,805	1,273,471	714,488	1,012,892	266,328	2,063,264	418,154	1,936,208
17,100,607 1,068,714	19,769,105 1,958,580	21,822,124 1,070,173	21,501,165 1,880,726	22,505,126	23,493,313	20,531,950	18,150,166
18,238,321	21,727,685	22,892,206	22,881,891				
54,918	49,086	39,852	45,196				
213,017	213,017	118,027	98,244				
117,126	117,126	54,432	88,526				
5,546	5,546	7,290	8,748				
31,218	29,981	33,188	23,297				
1,545,490	1,552,004	1,682,046	1,076,976				
1,570,668	2,409,418	1,526,433	1,807,296				
676,026	1,014,768	647,352	716,364				
321,140	698,721	125,114	262,611				
143,370	199,260	47,142	83,592				
96,714	698,540	626,981	559,686				
280,245	68,040	59,292	56,376				
	174,487	264,433	209,854				
	2,579,688	2,358,698	1,845,342				
	600,629	448,141	390,292				
2,805,858	3,180,317	2,801,839	2,235,634				
11,294		128,468	226,704				
514	3,766	9,428	19,634				
2,522	4,880	2,634	5,882				
3,899,972	3,746,471	3,920,049	3,107,737				
1,424,953	1,364,202	1,492,406	1,120,716				
5,881	6,963	12,802	7,014				
236,683	257,866	495,234	231,386				
23,828	60,314	88,276	60,029				
6,464	14,580	20,412	24,300				
21,721	27,630	41,838	17,773				
1,692,856	1,672,804	2,061,952	1,419,591				
223,729	270,688	159,894	219,672				
1,915,684	1,943,592	2,221,846	1,639,263				
24,900	140,429	120,956	175,024				
1,639,884	2,084,021	2,342,802	1,814,287				
57,834	88,048	28,674	17,962				
12,930	116,154	118,584	132,192				
276,674	185,652	143,370	157,950				
2,164,532		1,881,756	998,269				
62,694	49,086	54,918	31,104				
106,212	302,778	101,088	68,526				
437,818	567,852	768,230	614,872				
42,867	57,848	88,452	48,600				
55,404	66,696	69,984	52,488				
547,772	554,040	520,992	509,814				

BRITISH AFRICA—Continued.

Quantities and value of principal exports,

Articles.	1873.	1874.	1875.	1876.	1877.
WEST COAST—continued.					
<i>Sierra Leone—Continued.</i>					
Palm oil.....	{ gallons.....	.....	.....	268, 573	348, 496
	{ dollars.....	.....	.....	129, 788	190, 512
Rubber.....	{ pounds.....	.....	.....	.....	.....
	{ dollars.....	.....	.....	.....	.....
Rum.....	{ gallons.....	.....	.....	87, 726	33, 969
	{ dollars.....	.....	.....	26, 188	22, 356
Tobacco, unmanufactured.....	{ pounds.....	.....	.....	322, 902	380, 801
	{ dollars.....	.....	.....	57, 848	64, 152
All other articles.....	{ dollars.....	.....	.....	242, 503	263, 174
Total merchandise.....	dollars.....	.....	.....	1, 442, 949	1, 887, 406
Gold bullion.....	dollars.....	.....	.....	884	874
Domestic products.....	.....	.....	.....	104, 004	95, 742
Foreign products.....	.....	.....	.....	1, 339, 829	1, 792, 538
Total exports.....	.....	.....	.....	1, 443, 833	1, 888, 280
<i>Gambia.</i>					
Ground-nuts.....	{ tons.....	.....	.....	11, 184	17, 873
	{ dollars.....	.....	.....	359, 714	542, 376
Hides.....	{ number.....	.....	.....	18, 601	17, 953
	{ dollars.....	.....	.....	17, 982	17, 496
Wax, clean.....	{ tons.....	.....	.....	67	53
	{ dollars.....	.....	.....	35, 478	27, 702
All other articles.....	{ dollars.....	.....	.....	2, 979	5, 234
Total exports.....	dollars.....	.....	.....	396, 153	582, 808
Domestic products.....	dollars.....	.....	.....	.....	.....
Foreign products.....	dollars.....	.....	.....	.....	.....

BRITISH AFRICA—Continued.

Including bullion and specie—Continued.

1878.	1879.	1870.	1871.	1872.	1873.	1874.	1875.
647,265	410,175	292,806	391,272	.....	.....	.....	.....
179,334	200,232	129,818	172,044	.....	.....	.....	.....
.....	379,276	829,636	956,594	.....	.....	.....	.....
.....	102,546	304,236	329,904	.....	.....	.....	.....
45,406	75,973	47,784	14,568	.....	.....	.....	.....
29,160	43,198	26,438	8,262	.....	.....	.....	.....
716,517	396,900	334,491	201,766	.....	.....	.....	.....
89,424	55,404	43,254	83,048	.....	.....	.....	.....
268,862	126,414	140,542	116,209	.....	.....	.....	.....
1,903,167	1,693,996	1,770,350	1,678,213	.....	.....	.....	.....
223	6,058	58,912	99,876	.....	.....	.....	.....
63,666	50,544	58,320	34,020	.....	.....	.....	.....
1,839,734	1,850,110	1,770,972	1,744,069	.....	.....	.....	.....
1,903,400	1,900,654	1,829,292	1,778,689	.....	.....	.....	.....
26,877	25,037	15,483	18,994	.....	.....	.....	.....
933,120	849,866	537,516	578,882	.....	.....	.....	.....
15,380	30,608	18,798	15,273	.....	.....	.....	.....
15,036	29,660	18,468	15,066	.....	.....	.....	.....
46	46	45	81	.....	.....	.....	.....
24,786	23,810	21,384	11,858	.....	.....	.....	.....
19,926	64,441	96,114	78,744	.....	.....	.....	.....
992,898	1,007,789	675,482	682,550	.....	.....	.....	.....
27,216	685	3,446	29	.....	.....	.....	.....
965,682	1,007,104	672,036	682,521	.....	.....	.....	.....

EGYPT.

Value of the principal

[Goods in transit included]

Articles.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Boots and shoes	465,500	455,651	359,219	382,641	382,641
Candles	302,526	316,393	809,141	295,176	295,176
Canvas bags	283,632	353,143	110,250	901,253	901,253
Coffee	92,071	55,615	55,615	82,242	82,242
Chemicals and medicines	335,160	409,346	350,693	287,287	287,287
Coal	3,883,613	4,631,803	2,779,804	3,172,554	3,172,554
Copper	348,576	316,197	246,678	185,273	185,273
Cotton manufactures	6,352,801	7,501,454	6,964,672	6,150,578	6,150,578
Flour			267,736	109,221	109,221
Indigo	406,880	932,862	413,413	595,595	595,595
Iron, and manufactures of	841,282	551,084	710,786	518,420	518,420
Machinery	359,285	205,506	328,802	171,500	171,500
Oil, petroleum	327,516	282,436	197,715	501,335	501,335
Oil, all other	408,268	522,198	234,668	802,232	802,232
Provisions	1,146,404	1,190,181	915,614	221,360	221,360
Silk manufactures	362,110	451,045	280,280	319,186	319,186
Sugar, refined	479,220	510,564	493,087	678,944	678,944
Wearing apparel	2,569,405	1,893,487	1,232,438	1,032,332	1,032,332
Wines and spirits	578,985	685,628	564,970	474,614	474,614
Wood	788,214	951,384	1,112,545	673,886	673,886
Wool manufactures	1,044,347	661,533	632,345	651,651	651,651
Yarns of all sorts	664,758	661,353	632,345	671,651	671,651
All other articles	2,949,244	4,021,139	2,587,892	3,388,926	3,388,926
Total imports	24,846,626	27,535,403	20,840,631	22,017,866	22,017,866

Value of the principal articles

Articles.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Barley	59,290	186,445	428,162	206,192	206,192
Beans	3,080,875	2,738,857	4,718,812	4,558,815	4,558,815
Cotton	47,413,772	43,387,787	42,937,279	35,077,376	35,077,376
Cotton seed	6,423,557	6,093,248	7,188,714	7,966,077	7,966,077
Elephants' tusks		419,048	155,028	301,937	301,937
Flour	43,218	33,271	61,103	71,197	71,197
Gums	1,314,523	1,103,235	861,518	827,120	827,120
Hides and skins	579,376	546,644	554,337	614,950	614,950
Maize	19,551	125,214	174,636	73,457	73,457
Ostrich feathers	810,362	521,311	376,712	395,185	395,185
Rice	485,492	409,689	624,211	824,524	824,524
Sugar	3,569,654	2,460,437	2,222,934	4,587,821	4,587,821
Wheat	708,689	5,103,742	4,034,170	4,736,781	4,736,781
Wool	871,420	361,620	516,215	429,044	429,044
All other articles	910,224	1,847,787	1,657,080	1,714,601	1,714,601
Total exports	65,775,003	65,333,817	66,450,361	62,476,127	62,476,127

EGYPT.

articles imported.

previous to the year 1884.]

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
382,445	453,711	537,465	587,508	476,427	643,518	554,574	637,637
266,908	801,693	852,506	241,619	228,487	259,259	274,272	810,060
919,632	815,668	612,001	432,033	285,082	401,947	543,753	535,766
96,407	1,038,996	1,498,373	1,293,159	1,145,863	1,067,759	1,318,247	1,076,187
209,598	427,084	499,917	367,108	295,274	424,039	204,477	-----
1,257,569	2,752,722	2,202,983	4,266,234	3,677,499	4,483,598	2,386,741	2,208,185
163,023	242,011	494,812	516,725	228,536	313,208	505,092	619,413
5,504,953	6,748,427	8,602,193	7,716,716	5,763,184	9,231,039	7,830,837	8,119,496
190,816	116,473	144,305	208,888	841,285	258,377	811,014	618,637
1,345,001	829,628	1,048,551	1,247,650	1,011,005	1,640,961	1,867,051	1,211,385
531,062	250,488	668,487	723,238	503,379	472,311	1,144,444	910,322
266,511	327,663	574,329	876,071	807,236	696,094	785,597	789,194
423,409	442,960	357,945	702,660	558,504	472,262	707,364	770,035
411,551	674,436	730,590	426,323	574,819	590,428	694,428	822,318
637,392	1,177,764	1,078,098	1,522,185	1,526,605	876,061	1,552,124	1,186,455
353,094	760,037	1,381,796	1,226,421	491,372	685,951	551,985	574,476
771,269	826,434	961,478	1,164,534	874,650	835,205	709,197	534,698
1,083,239	874,454	939,034	802,865	721,084	885,620	901,153	1,028,805
573,663	712,019	753,834	1,031,785	998,130	1,272,677	1,224,559	1,302,273
786,548	918,554	1,470,196	1,236,804	696,397	1,213,191	1,490,523	1,733,081
531,062	657,473	928,912	927,345	731,962	910,898	878,035	1,731,317
531,062	557,473	727,942	727,227	731,962	940,898	877,825	-----
4,497,558	10,092,620	13,041,996	13,158,251	10,996,041	13,519,906	14,169,899	13,355,605
23,737,266	31,497,788	40,790,295	41,563,299	33,663,375	42,125,202	40,963,600	45,070,935

of domestic produce exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
3,577	404,250	350,938	173,852	55,419	119,815	338,492	50,029
1,076,923	3,735,319	3,235,858	3,239,978	2,730,260	4,422,838	3,539,511	3,413,683
24,517,199	89,782,365	36,592,073	43,598,291	36,191,351	36,582,322	40,364,975	37,764,361
4,949,784	6,452,614	7,580,594	7,882,291	5,690,958	8,812,997	7,174,090	7,052,630
135,289	37,973	109,270	3,822	90,503	633,374	73,647	1,180
24,157	432,964	765,282	193,893	61,691	42,973	79,037	83,026
932,025	1,093,925	1,153,799	1,241,562	591,146	681,247	631,855	480,053
545,272	553,602	498,291	681,639	657,327	609,609	570,156	845,111
6,909	204,183	616,714	133,329	785,862	205,604	1,144,101	134,159
535,031	534,666	502,348	320,901	312,767	343,049	97,706	34,251
790,596	646,359	1,006,852	718,830	574,084	594,664	673,866	635,628
4,008,898	3,325,581	2,633,693	1,432,809	2,627,324	1,932,148	1,843,148	2,838,619
451,241	6,597,368	5,161,415	2,270,121	408,072	2,670,843	2,151,845	731,913
253,477	220,398	270,872	247,401	222,362	390,726	244,114	278,908
1,426,337	5,715,158	6,590,302	2,939,804	2,869,089	2,976,752	3,203,737	3,750,392
39,676,672	69,746,747	68,068,301	64,573,523	53,868,533	60,518,461	62,129,109	57,543,934

AUSTRALASIA.

Quantities and value of principal im-

Articles.	1873.	1874.	1875.	1876.	1877.
NEW SOUTH WALES.					
Apparel and slops	dollars.. 1,711,602	1,632,960	1,970,244	2,499,984	1,994,280
Beer and ale	gallons.. 1,783,109	1,744,806	1,849,135	1,324,625	1,422,647
Candles	dollars.. 1,401,128	1,261,056	1,089,126	970,056	1,125,576
Copper ore	pounds.. 1,741,308	3,558,139	2,410,392	1,060,678	3,194,512
Grain:	dollars.. 300,848	616,734	293,544	283,338	548,094
Wheat	tons.. 81,028	25,962	27,256	32,797	29,336
Flour	dollars.. 1,102,248	953,056	1,107,108	1,101,054	1,076,490
Rice	bushels.. 818,845	740,019	1,089,772	918,005	828,526
Hardware	dollars.. 872,370	1,043,928	1,165,428	1,093,986	1,318,032
Iron and steel, and manufactures of, dollars	tons.. 18,819	19,133	28,492	26,392	25,516
Machinery	dollars.. 1,112,454	1,180,008	1,521,006	1,466,748	1,648,026
Leather goods (boots and shoes), dollars	tons.. 5,460	5,367	4,117	2,856	3,052
Linens, drapery, and haberdashery, *dollars	dollars.. 478,224	436,428	811,040	264,606	377,770
Oilmen's stores	dollars.. 1,023,030	1,074,546	1,684,476	1,639,072	1,686,362
Railway rails	dollars.. 1,366,146	2,007,666	3,068,250	1,040,112	4,363,308
Spirits and wines:	dollars.. 352,350	607,014	660,400	674,082	1,299,246
Brandy	dollars.. 1,003,104	1,133,352	1,261,170	1,243,188	1,516,208
Rum	dollars.. 8,017,056	6,379,854	8,202,222	7,401,780	9,449,784
Gin and geneva	dollars.. 271,074	367,416	643,950	88,452	101,088
Whisky	Included with iron and steel and manufactures of.				
Wine	gallons.. 456,637	542,374	421,561	544,944	579,116
Stationery:	dollars.. 797,526	1,060,432	856,312	1,162,512	1,456,056
Books	gallons.. 183,665	240,849	252,613	233,044	318,110
Paper	dollars.. 139,482	200,718	202,662	202,662	299,376
Sugar, unrefined	gallons.. 212,113	212,819	300,300	205,609	213,562
Cigars	dollars.. 272,160	240,084	330,620	243,972	349,434
Wool	gallons.. 63,996	43,075	61,258	72,012	122,572
All other articles	dollars.. 105,948	74,844	95,742	130,734	234,738
Total	gallons.. 325,709	210,028	177,888	213,634	302,605
Gold:	dollars.. 512,730	340,200	335,840	446,634	632,566
Books	gallons.. 1,242,120	1,248,645	1,213,120	1,269,243	1,637,965
Paper	dollars.. 1,827,846	1,916,298	1,820,696	2,156,514	2,962,170
Sugar, unrefined	dollars.. 566,190	542,862	599,238	825,228	794,124
Tea	dollars.. 430,596	361,098	562,802	557,442	557,442
Timber, &c	tons.. 26,616	83,045	22,059	23,379	25,125
Tobacco:	dollars.. 3,424,356	2,845,530	2,455,272	2,618,082	2,774,084
Manufactured	pounds.. 5,021,219	5,168,267	5,215,455	4,599,499	6,068,326
Unmanufactured	dollars.. 1,575,612	1,602,825	1,623,824	1,534,802	2,000,498
Cigars	dollars.. 265,356	422,820	278,478	400,950	712,476
Wool	pounds.. 673,393	765,600	418,016	490,614	653,751
All other articles	dollars.. 182,250	235,710	134,622	151,632	229,878
Total imports of merchandise	pounds.. 732,923	2,115,628	715,720	411,394	1,610,980
Gold:	dollars.. 149,202	447,120	176,904	100,116	356,236
Bullion	pounds.. 92,199	78,351	54,886	129,184	114,233
Coin	dollars.. 142,398	124,902	87,966	222,102	189,054
Total gold	pounds.. 9,870,191	7,823,899	8,857,279	6,765,996	1,646,262
Grand total merchandise and gold	dollars.. 2,888,784	2,067,576	2,147,148	1,612,062	1,792,854
Gold	dollars.. 15,708,604	18,769,313	25,509,492	29,317,700	26,368,589
Total imports of merchandise	dollars.. 46,173,028	48,260,772	58,426,566	60,182,558	65,129,265
Gold:	ounces.. 234,545	341,458	347,068	303,585	314,564
Bullion	dollars.. 4,306,446	6,335,010	6,580,794	5,717,304	5,339,196
Coin	dollars.. 871,304	291,600	536,984	589,946	516,618
Total gold	dollars.. 4,677,750	6,626,610	7,136,778	6,257,250	5,856,811
Grand total merchandise and gold	dollars.. 50,850,778	54,887,382	65,563,344	66,449,808	70,986,076

*Including woollens, hosiery, gloves, silks, blankets, cottons, haberdashery, hats, bonnets, umbrellas, &c.

AUSTRALASIA.

ports, including intercolonial trade.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
3, 126, 438	2, 237, 058	1, 324, 836	1, 553, 256	1, 735, 506	1, 644, 628	4, 075, 596	4, 608, 788
1, 103, 514	1, 393, 258	1, 263, 827	1, 073, 342	1, 323, 350	1, 591, 113	1, 714, 351	2, 099, 557
982, 692	1, 194, 902	881, 034	950, 616	1, 311, 714	1, 412, 816	1, 566, 864	1, 893, 942
1, 788, 882	2, 236, 312	1, 803, 982	2, 877, 471	3, 024, 226	2, 261, 839	5, 078, 982	5, 160, 191
352, 836	363, 528	183, 222	388, 800	887, 828	339, 714	825, 714	762, 048
27, 362	19, 405	10, 167	23, 855	29, 268	20, 077	25, 515	21, 594
906, 876	653, 184	693, 522	863, 622	947, 214	846, 126	1, 162, 512	967, 043
780, 694	442, 842	422, 475	260, 118	696, 518	247, 090	469, 785	545, 423
1, 439, 068	530, 712	458, 298	284, 796	935, 550	295, 002	420, 390	461, 120
36, 491	30, 982	40, 865	36, 352	53, 685	44, 053	54, 470	58, 702
1, 967, 460	1, 515, 834	1, 905, 120	1, 688, 110	3, 127, 410	2, 325, 510	2, 520, 396	2, 544, 098
6, 687	5, 181	5, 081	7, 482	7, 129	5, 557	8, 893	7, 519
437, 400	375, 678	392, 688	571, 050	492, 804	380, 052	613, 332	448, 092
2, 246, 290	2, 310, 444	1, 811, 808	2, 636, 064	3, 585, 708	3, 856, 896	3, 484, 134	3, 154, 626
3, 418, 524	2, 590, 380	3, 004, 452	4, 291, 866	5, 574, 906	4, 750, 650	5, 040, 792	6, 262, 110
930, 204	1, 112, 454	798, 012	1, 838, 370	1, 889, 568	2, 477, 628	2, 865, 164	2, 358, 558
1, 442, 448	1, 984, 824	1, 823, 472	2, 135, 634	3, 089, 988	2, 777, 004	2, 827, 548	3, 661, 514
13, 204, 620	12, 213, 180	13, 085, 550	16, 573, 086	19, 863, 792	18, 839, 304	15, 635, 592	16, 567, 254
79, 704	52, 002	44, 226	71, 442	129, 762	113, 238	124, 416	135, 594
427, 184	333, 396	581, 256	972, 272	1, 054, 620	322, 218	927, 288	735, 318
502, 607	515, 212	508, 102	546, 785	474, 988	444, 134	472, 058	512, 595
1, 226, 178	1, 313, 172	1, 183, 896	1, 293, 246	1, 207, 710	1, 203, 822	1, 283, 526	1, 276, 722
251, 044	245, 466	253, 092	267, 139	302, 550	293, 875	336, 875	336, 362
239, 014	225, 990	220, 158	260, 010	370, 372	303, 264	346, 032	263, 412
187, 196	282, 702	235, 997	235, 026	255, 046	218, 855	269, 506	212, 042
234, 738	337, 284	270, 216	258, 552	315, 414	310, 886	392, 668	369, 582
156, 667	202, 717	193, 980	358, 735	337, 837	293, 285	314, 883	378, 466
271, 188	400, 464	358, 668	684, 774	681, 372	589, 032	707, 130	667, 204
265, 691	201, 647	178, 401	218, 728	246, 302	267, 637	208, 241	242, 502
544, 806	462, 186	360, 126	499, 608	501, 552	681, 838	608, 472	663, 334
1, 362, 605	1, 447, 744	1, 969, 634	1, 626, 363	1, 636, 493	1, 517, 786	1, 601, 090	1, 605, 967
2, 516, 022	2, 739, 096	2, 393, 001	2, 996, 190	3, 076, 429	3, 094, 862	3, 337, 848	3, 202, 251
875, 772	849, 598	696, 924	775, 170	918, 026	906, 576	1, 062, 396	1, 055, 592
501, 532	741, 150	668, 250	857, 304	878, 202	736, 776	1, 012, 838	1, 205, 361
30, 204	38, 619	21, 742	29, 879	35, 740	30, 280	36, 937	30, 097
4, 388, 393	4, 057, 614	2, 623, 914	3, 180, 702	4, 074, 138	3, 612, 294	4, 098, 924	2, 430, 486
5, 370, 406	7, 630, 000	7, 460, 540	8, 270, 030	7, 588, 709	5, 782, 011	8, 437, 981	8, 641, 670
1, 763, 694	2, 335, 230	2, 331, 342	2, 651, 130	2, 259, 414	1, 677, 072	2, 641, 410	2, 258, 000
961, 308	1, 132, 380	937, 494	1, 136, 754	2, 265, 394	2, 150, 064	2, 040, 462	1, 983, 852
1, 030, 063	755, 049	525, 539	613, 868	928, 152	949, 448	765, 447	955, 050
894, 146	250, 200	153, 578	223, 074	314, 928	291, 114	280, 656	335, 820
2, 448, 104	202, 569	477, 810	1, 035, 243	1, 222, 594	836, 066	871, 416	516, 951
109, 836	36, 936	84, 561	181, 278	222, 588	170, 586	173, 502	118, 098
184, 149	122, 839	107, 105	250, 960	220, 623	336, 237	298, 531	317, 994
255, 150	162, 324	152, 604	327, 564	337, 770	432, 540	320, 760	371, 304
5, 449, 582	6, 454, 370	10, 945, 936	8, 096, 141	8, 316, 114	16, 765, 446	11, 404, 249	12, 798, 959
1, 887, 044	1, 518, 750	2, 525, 742	1, 728, 216	1, 894, 428	3, 234, 816	2, 366, 334	2, 639, 436
23, 829, 813	21, 560, 373	23, 651, 404	30, 152, 229	37, 576, 530	30, 303, 079	43, 689, 456	46, 411, 706
66, 073, 984	62, 871, 147	62, 212, 374	78, 755, 595	97, 045, 038	96, 090, 465	103, 072, 824	106, 590, 983
273, 999	271, 790	283, 118	313, 539	253, 984	201, 115	349, 486	293, 083
5, 126, 814	5, 183, 620	5, 447, 574	5, 824, 710	4, 757, 454	3, 665, 895	6, 866, 114	5, 880, 810
375, 910	949, 644	137, 052	28, 893	728, 654	2, 109, 726	1, 499, 796	1, 787, 430
5, 702, 724	6, 135, 264	5, 584, 626	5, 853, 603	5, 481, 108	5, 775, 621	7, 865, 910	7, 168, 270
71, 776, 708	69, 006, 411	67, 797, 000	84, 609, 198	109, 426, 146	101, 866, 086	110, 938, 734	113, 749, 253

AUSTRALASIA—Continued.

Quantities and values of principal imports,

Articles.	1873.	1874.	1875.	1876.	1877.
VICTORIA.					
Apparel and hoeses	dollars 1,430,578	1,464,804	1,678,858	1,477,440	1,684,962
Beer, cider, and perry	{ gallons 1,028,371	1,804,632	841,853	753,974	960,667
Boots and shoes	{ dollars 1,019,628	1,433,700	844,068	768,852	977,532
Candles	{ pounds 2,391,416	1,011,852	984,150	972,000	1,037,050
Coal	{ tons 521,478	740,178	445,176	743,680	1,167,040
Cottons	{ dollars 208,577	224,749	236,301	248,087	277,400
Flour	{ dollars 1,193,616	1,188,756	1,279,638	1,348,650	1,581,444
Furniture	{ dollars 3,101,166	3,367,008	2,794,966	3,152,682	3,723,732
Government stores, including railway	{ dollars 171,558	232,794	190,512	263,898	204,120
Grain of all kinds	{ dollars 833,004	1,614,978	689,721	680,886	842,238
Haberdashery	{ dollars 3,023,892	2,754,162	2,996,676	2,902,392	2,453,272
Hardware and ironmongery	{ dollars 1,048,026	1,797,714	1,758,348	997,552	1,138,212
Hats, caps, and bonnets	{ dollars 597,548	426,222	272,160	419,418	561,816
Hosiery and gloves	{ dollars 513,216	583,200	585,836	631,314	672,138
Iron and steel	{ dollars 956,934	1,014,784	923,400	963,252	1,128,026
Leather and leather ware	{ dollars 2,405,700	2,742,012	3,562,580	3,175,524	3,443,810
Linens	{ dollars 466,560	581,742	596,350	585,144	689,634
Live stock	{ number 270,216	233,206	236,196	226,476	182,250
Machinery	{ dollars 753,284	808,627	979,409	1,107,468	833,261
Oil of all kinds	{ gallons 4,096,980	5,727,996	5,568,588	5,819,896	4,978,584
Silks, and manufactures of	{ dollars 478,710	503,440	547,722	452,932	510,800
Spirits of all kinds	{ gallons 1,962,356	2,208,202	1,703,706	1,201,676	1,662,767
Stationery	{ dollars 1,233,954	1,242,702	1,139,184	719,766	1,171,260
Sugar and molasses	{ pounds 1,423,983	1,572,696	1,126,548	1,256,510	1,258,740
Tes	{ dollars 1,223,523	1,401,217	1,154,636	1,374,612	1,493,680
Timber	{ dollars 1,969,754	2,516,022	1,823,958	2,463,478	2,818,800
Tobacco, and manufactures of	{ pounds 348,432	360,126	343,116	263,338	298,896
Wine	{ dollars 94,141,040	93,816,018	88,969,488	89,126,128	62,147,232
Wool	{ gallons 6,340,356	5,233,660	5,055,631	5,278,932	8,737,340
Woolen goods	{ pounds 10,585,795	7,118,355	9,038,967	9,777,122	8,343,261
Woolen goods	{ dollars 3,730,835	2,368,280	3,642,084	3,270,294	2,914,512
Woolen goods	{ dollars 2,860,110	2,325,624	2,367,936	1,575,612	2,627,802
Woolen goods	{ dollars 1,625,670	1,351,556	1,145,502	1,414,746	1,867,212
Woolen goods	{ gallons 409,290	388,646	270,585	342,125	326,301
Woolen goods	{ pounds 842,238	830,038	833,670	870,912	821,340
Woolen goods	{ dollars 32,097,686	36,215,972	41,417,925	46,881,787	45,631,822
Woolen goods	{ dollars 8,949,690	9,848,790	11,229,030	10,590,912	9,969,688
Woolen goods	{ dollars 4,440,096	5,230,934	4,364,766	8,833,492	4,460,508
Woolen goods	{ dollars 21,973,679	20,991,490	21,815,257	19,045,110	20,400,829
Total merchandise	{ dollars 79,829,660	81,488,519	80,398,634	75,642,620	79,230,461
Specie	{ dollars 524,880	907,848	690,840	685,260	290,628
Grand total imports	{ dollars 80,354,540	82,396,367	81,089,474	76,328,080	79,521,089
SOUTH AUSTRALIA.					
Apparel and hoeses	{ dollars 98,172	94,284	86,994	715,392	1,180,008
Bags and sacks	{ number 1,069,200	470,934	329,022	2,333,973	1,639,966
Beer, porter, ale, &c.	{ gallons 283,370	315,212	252,754	269,211	303,422
Boots and shoes	{ dollars 289,656	314,442	219,672	221,616	847,976
Candles	{ pounds 356,724	291,600	310,554	436,428	437,400
Coal, coke, &c.	{ tons 618,189	807,497	619,535	814,847	1,617,951
Cutlery and hardware	{ dollars 110,322	147,258	102,060	135,594	268,272
Drapery, piece goods, cloth, &c., dol-	{ dollars 91,941	97,630	125,622	105,751	89,555
Groceries and oilmen's stores	{ dollars 427,680	442,746	573,994	460,728	409,212
Iron:	{ dollars 147,744	163,296	205,578	302,292	317,844
Bar, sheet, hoop, &c.	{ tons 4,604,850	4,198,554	3,861,756	3,868,074	3,535,650
Grindery, hollow ware, wire, &c.,	{ dollars 261,954	234,352	292,086	300,834	249,804
Implement and tools	{ dollars 4,474	5,243	11,533	5,350	5,173
Machinery	{ dollars 280,908	317,858	364,966	250,290	232,794
Agricultural machinery	{ dollars 1,131,894	1,048,788	1,633,726	1,381,606	1,515,834
.....	{ dollars 178,362	194,886	225,018	265,842	206,550
.....	{ dollars 138,510	151,632	140,940	100,116	185,652
.....	{ dollars 92,340	107,406	138,024	163,782	226,962

AUSTRALASIA—Continued.

including intercolonial trade—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
1,799,658	1,371,978	1,194,588	1,359,828	1,524,582	1,535,760	1,535,274	1,747,170
884,039	972,513	789,585	780,785	1,014,851	936,153	1,041,594	1,023,158
910,703	940,410	818,910	785,862	1,009,908	960,822	1,060,938	1,064,340
1,037,124	873,828	490,374	512,244	591,948	593,752	489,889	534,000
948,960	1,048,320	698,880	1,700,160	1,211,840	571,200	1,153,600	1,068,240
170,588	173,988	114,210	278,478	193,914	104,976	223,074	216,270
296,548	298,661	290,359	332,430	358,623	423,886	452,184	506,751
1,734,534	1,724,814	1,492,020	1,524,094	1,660,662	1,826,874	2,005,722	2,191,860
3,223,631	2,595,726	8,274,182	4,241,322	5,094,738	4,065,390	4,599,018	4,954,284
29,646	18,468	40,824	16,524	77,760	78,246	86,022	56,378
279,936	175,832	148,716	268,272	874,220	331,938	358,192	444,204
583,200	87,066	221,616	658,044	802,389	3,141,990	630,342	677,970
2,540,322	2,823,660	1,433,090	1,683,090	1,226,178	1,306,854	756,702	1,083,294
1,811,714	1,024,974	1,091,056	1,586,304	1,641,708	2,548,842	1,762,236	1,855,548
764,964	475,794	372,762	564,240	823,284	869,454	930,504	984,038
671,166	568,134	463,158	569,106	627,912	614,700	586,602	529,214
1,019,628	862,164	736,290	945,756	1,098,980	1,154,250	1,048,936	1,170,774
2,879,550	1,738,422	2,263,788	2,332,314	4,411,064	8,304,204	3,231,414	3,078,048
674,568	674,082	663,876	698,382	736,770	798,012	933,120	831,546
199,746	171,072	159,894	113,234	154,548	137,548	203,148	187,596
554,176	199,332	1,021,620	1,156,518	857,521	1,020,692	2,034,534	1,160,703
2,998,592	4,326,486	4,278,258	8,680,428	8,861,270	4,485,294	6,479,352	4,287,006
537,030	419,418	294,030	502,524	735,804	1,134,324	1,214,514	769,824
2,208,814	2,095,038	1,957,987	1,923,917	1,974,666	1,835,831	2,077,197	3,080,651
1,201,392	1,064,340	1,069,084	989,982	892,209	937,494	1,015,254	1,231,524
1,246,590	976,860	951,588	1,282,554	1,257,282	1,265,280	1,292,760	1,294,218
1,044,416	1,118,915	978,533	1,335,129	1,160,837	1,127,968	1,190,446	1,099,000
1,803,540	1,878,390	1,631,502	2,074,734	1,930,391	1,989,194	2,105,352	1,799,658
295,974	336,798	260,496	405,891	450,522	410,184	466,074	468,018
52,845,568	89,867,168	86,288,944	83,428,653	120,834,083	125,425,256	113,869,163	138,128,368
5,293,942	5,520,006	5,050,006	6,090,044	5,641,488	5,482,080	5,785,344	5,851,440
8,212,102	8,388,960	8,691,160	15,122,030	11,438,456	9,363,122	11,524,205	13,679,852
2,628,744	2,494,638	2,845,810	4,581,036	3,621,672	2,740,521	3,245,508	3,640,628
2,593,296	1,546,452	1,272,348	2,342,034	3,476,814	3,433,104	3,566,268	3,691,170
1,306,854	864,108	662,534	912,048	1,225,692	1,029,348	1,056,078	1,223,748
271,950	168,790	172,394	210,305	255,651	230,300	161,814	175,372
717,336	475,308	279,936	618,604	741,150	772,740	495,720	549,180
49,170,510	50,040,390	60,723,152	59,345,348	53,819,219	45,520,395	59,675,280	54,688,900
11,432,722	12,123,756	14,460,878	14,032,278	13,290,642	9,931,896	12,518,874	10,701,170
4,209,732	3,408,318	3,137,130	3,224,124	4,495,014	3,853,980	4,486,266	4,150,440
20,805,153	20,067,327	18,905,371	21,704,695	26,686,172	24,405,115	26,499,108	23,862,683
76,953,639	71,812,517	70,083,115	80,097,972	90,381,817	85,295,163	90,623,608	85,728,475
1,563,108	1,260,108	663,390	554,440	733,860	939,924	2,096,828	1,968,800
78,546,737	73,072,715	70,716,565	81,252,012	91,115,677	86,235,087	93,319,836	87,696,776
1,299,078	2,544,994	1,221,318	1,316,574	1,555,200	1,567,836	1,233,468	.....
8,394,872	8,456,286	1,466,364	3,360,266	4,153,068	4,834,314	4,001,630	.....
557,442	439,344	210,186	590,004	563,274	639,090	445,662	.....
289,851	461,837	373,452	303,549	426,180	498,944	424,392	.....
257,580	423,792	338,742	263,879	370,818	451,980	356,724	.....
453,924	506,412	552,582	433,512	703,242	653,184	614,304	.....
1,200,799	1,232,614	1,845,634	1,311,443	1,382,064	884,435	1,177,892	.....
187,110	175,406	173,782	156,006	164,268	121,014	181,764	.....
110,862	113,678	107,135	127,668	152,187	150,140	139,810	.....
514,188	510,788	450,756	478,710	527,310	442,260	872,870	.....
484,484	870,332	403,866	386,370	551,124	495,234	439,844	.....
3,406,374	3,050,136	3,227,526	3,411,214	4,663,170	5,472,860	.....	.....
222,102	1,292,760	1,210,626	1,283,526	1,558,602	1,094,472	.....	.....
8,034	5,377	7,218	5,567	9,040	9,073	6,697	.....
356,724	200,718	280,422	197,816	329,508	290,086	238,140	.....
1,456,056	1,172,718	1,559,088	1,277,694	2,019,350	1,404,054	.....	.....
260,010	196,344	198,774	177,876	301,320	252,750	.....	.....
170,586	229,878	202,176	231,336	848,948	860,930	270,216	.....
287,226	226,962	188,082	201,204	296,946	207,036	.....	.....

AUSTRALASIA—Continued.

Quantities and values of principal imports,

Articles.	1873.	1874.	1875.	1876.	1877.
SOUTH AUSTRALIA—continued.					
Spirits and wine:					
Brandy	{ gallons .. 283, 376	315, 212	252, 754	269, 211	382, 422
	{ dollars .. 178, 362	287, 226	214, 326	308, 618	344, 088
Gin	{ gallons .. 21, 408	18, 659	6, 078	15, 485	17, 167
	{ dollars .. 36, 936	33, 048	15, 066	27, 702	29, 160
Whisky	{ gallons .. 20, 597	24, 407	19, 720	19, 462	49, 722
	{ dollars .. 25, 758	36, 936	30, 618	33, 048	63, 160
Wine	{ gallons .. 34, 882	45, 056	68, 694	45, 440	52, 333
	{ dollars .. 79, 218	98, 658	98, 172	111, 294	130, 248
Sugar	{ pounds .. 14, 187, 872	19, 431, 888	15, 743, 840	21, 993, 776	17, 585, 920
	{ dollars .. 965, 196	1, 301, 022	919, 026	1, 401, 138	1, 093, 600
Tea	{ pounds .. 1, 676, 328	1, 690, 708	1, 808, 286	1, 912, 514	1, 289, 248
	{ dollars .. 565, 218	642, 492	696, 437	648, 894	474, 336
Tobacco, manufactured	{ dollars .. 130, 734	161, 838	194, 886	180, 792	262, 440
Tobacco, unmanufactured	{ dollars .. 714	1, 612	1, 774	1, 312	28, 188
Wood and timber	{ dollars .. 616, 734	613, 818	987, 552	1, 052, 190	1, 328, 724
Wool	{ pounds .. 5, 227, 197	5, 140, 490	7, 165, 355	9, 086, 734	3, 386, 827
	{ dollars .. 1, 586, 304	1, 485, 702	1, 815, 622	2, 129, 166	696, 438
All other articles	{ dollars .. 4, 632, 510	6, 149, 660	5, 936, 060	6, 538, 204	8, 185, 647
Total merchandise	{ dollars .. 18, 006, 300	18, 989, 478	19, 403, 550	21, 362, 033	22, 045, 981
Bullion and specie	{ dollars .. 661, 446	369, 360	1, 026, 918	878, 202	434, 988
Grand total imports	{ dollars .. 18, 667, 746	19, 358, 838	20, 430, 468	22, 240, 235	22, 479, 979
TASMANIA.					
Boots and shoes	{ dollars .. 113, 724	104, 976	92, 340	100, 716	134, 136
Coal	{ tons .. 11, 042	9, 885	14, 654	23, 629	24, 665
	{ dollars .. 64, 638	57, 348	76, 788	134, 136	141, 912
Drapery, including apparel	{ dollars .. 1, 422, 036	1, 721, 898	1, 493, 964	1, 403, 026	1, 726, 272
Hardware and ironmongery	{ dollars .. 258, 066	313, 956	387, 828	894, 146	396, 118
Railway materials	{ dollars .. 134, 136	557, 928	274, 590	125, 388	31, 590
Stationery and books	{ dollars .. 154, 548	160, 880	160, 866	166, 098	164, 268
Sugar, raw	{ dollars .. 709, 580	676, 512	543, 834	565, 218	607, 014
Tea	{ dollars .. 290, 142	199, 260	172, 530	211, 410	206, 064
Tobacco	{ dollars .. 95, 742	55, 404	62, 208	52, 488	79, 218
Wine	{ dollars .. 57, 834	68, 528	53, 460	64, 638	54, 918
All other articles	{ dollars .. 2, 080, 406	2, 245, 247	2, 445, 270	2, 268, 531	2, 819, 631
Total imports	{ dollars .. 5, 380, 832	6, 161, 435	5, 763, 678	5, 516, 395	6, 360, 141
NEW ZEALAND.					
Ale and beer	{ dollars .. 817, 358	664, 362	428, 652	391, 716	330, 538
Apparel and slope	{ dollars .. 993, 884	1, 831, 640	1, 396, 278	884, 520	890, 706
Boots and shoes	{ dollars .. 1, 232, 010	1, 045, 872	746, 010	658, 630	881, 604
Coal	{ tons .. 119, 023	141, 591	162, 525	178, 314	171, 975
	{ dollars .. 912, 708	1, 025, 946	1, 197, 990	1, 172, 232	1, 169, 316
Cottons	{ dollars .. 490, 374	634, 230	585, 144	409, 212	403, 880
Drapery	{ dollars .. 3, 671, 318	5, 623, 992	5, 133, 133	3, 882, 654	4, 171, 824
Haberdashery	{ dollars .. 287, 712	511, 272	597, 780	413, 100	388, 940
Iron, ironware, hardware, &c.	{ dollars .. 2, 354, 184	2, 910, 654	3, 501, 630	2, 732, 392	2, 413, 476
Live-stock	{ number .. 2, 727	3, 538	2, 647	2, 647	1, 308
Millinery, silks, linen, and hos- lery	{ dollars .. 150, 660	281, 394	327, 078	284, 716	104, 416
Millinery	{ dollars .. 354, 294	548, 694	546, 750	447, 066	490, 374
Railway materials	{ dollars .. 1, 287, 214	3, 507, 462	2, 098, 062	1, 511, 946	745, 524
Spirits:					
Brandy	{ dollars .. 521, 964	916, 596	694, 494	865, 080	691, 092
Other kinds	{ dollars .. 361, 098	479, 682	500, 094	539, 692	512, 730
Stationery and books	{ dollars .. 738, 720	726, 570	742, 122	828, 630	906, 390
Sugar, raw and refined	{ dollars .. 1, 812, 294	2, 051, 892	1, 470, 356	2, 125, 178	2, 067, 930
Tea	{ dollars .. 1, 072, 116	901, 530	1, 290, 816	931, 588	1, 034, 694
Tobacco and manufactures of	{ dollars .. 476, 706	476, 766	588, 974	487, 944	547, 320
Wine	{ dollars .. 470, 448	567, 648	457, 326	490, 654	468, 644
Woolens	{ dollars .. 710, 532	896, 184	1, 050, 246	609, 708	622, 336
All other articles	{ dollars .. 18, 223, 225	14, 869, 624	15, 718, 642	13, 831, 033	15, 139, 318
Total imports	{ dollars .. 31, 418, 379	39, 473, 006	39, 021, 776	33, 559, 131	33, 891, 152

AUSTRALASIA—Continued.

including intercolonial trade—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
289,851	461,837	378,452	303,540	426,189	498,941	424,892	.....
282,852	340,200	373,734	332,910	282,866	303,750	292,794	.....
18,435	17,821	13,060	14,572	13,901	31,107	16,146	.....
31,104	32,076	22,842	28,188	18,954	36,936	24,786	.....
47,004	46,977	88,227	114,063	104,381	115,667	115,122	.....
74,884	77,274	164,754	194,400	202,176	240,084	244,046	.....
40,125	47,961	51,341	46,022	58,240	49,226	33,858	.....
118,584	134,622	144,312	137,538	177,362	144,342	110,822	.....
27,039,040	24,207,904	23,274,608	25,990,256	29,529,024	34,344,880	34,178,704	.....
1,676,214	1,470,150	1,475,496	1,368,090	1,772,442	2,177,766	1,870,128	.....
2,335,835	1,970,874	2,060,184	8,074,713	2,810,896	1,781,231	2,229,983	.....
733,244	637,146	615,762	845,640	765,430	452,466	505,704	.....
154,062	117,126	76,302	59,778	102,546	89,432	90,882	.....
59,778	43,740	106,920	88,472	126,846	60,204	77,274	.....
1,448,766	1,232,982	1,288,012	1,860,314	1,700,028	1,280,124	913,194	.....
13,414,375	9,693,056	10,009,719	8,100,233	17,775,608	13,209,299	16,816,068	.....
3,245,904	2,124,792	2,470,824	1,646,082	4,195,534	3,213,432	3,854,532	.....
9,328,516	6,340,827	7,854,119	7,838,857	8,801,400	8,861,045	13,552,852	.....
27,030,882	23,891,517	24,819,033	24,305,510	32,098,184	30,316,947	26,189,826	.....
766,423	477,252	2,307,042	1,069,200	501,666	349,920	1,752,030	.....
27,797,305	24,368,769	27,126,075	25,374,710	32,599,850	30,666,867	27,941,856	.....
122,472	169,614	168,642	154,062	228,420	200,232	199,074	243,486
27,682	14,057	23,005	22,622	36,147	86,768	43,402	46,956
131,220	72,900	99,144	149,688	138,024	172,044	197,316	208,494
1,585,818	1,675,728	1,732,590	1,934,766	2,245,320	2,397,438	2,009,096	2,022,732
439,344	461,008	521,964	629,370	663,820	896,184	617,146	661,932
112,268	120,528	466,560	544,820	101,574	229,376	263,898	.....
213,840	173,988	133,164	161,828	171,558	213,766	222,102	197,316
793,638	576,396	656,586	763,506	780,516	889,866	486,972	822,312
185,166	191,970	200,232	223,074	233,766	192,942	212,868	210,924
57,824	50,544	46,170	61,732	115,182	116,154	113,298	105,948
65,124	50,544	51,516	54,432	93,112	71,444	58,778	60,294
2,732,134	2,626,708	2,577,856	2,278,582	3,317,146	3,347,170	3,617,245	4,007,974
6,438,856	6,159,928	6,654,424	6,955,960	8,120,438	8,966,616	8,048,733	8,541,382
559,872	592,508	478,710	446,148	553,924	398,520	415,044	406,692
1,230,552	1,430,784	930,690	1,157,166	1,422,522	1,282,068	961,308	1,053,162
1,122,660	834,462	475,808	640,548	935,046	818,424	698,868	902,016
191,563	173,894	135,628	142,938	142,540	142,727	173,561	128,786
1,304,424	1,076,490	823,770	766,908	798,012	756,702	933,120	714,906
690,606	561,830	406,296	744,552	1,161,054	1,022,544	1,048,302	1,152,806
5,348,154	5,696,698	3,744,630	4,962,752	5,184,162	4,886,730	4,779,824	5,295,456
358,182	367,416	170,568	274,104	293,544	284,796	324,162	397,062
3,559,464	2,585,808	2,078,622	2,895,102	3,978,896	3,200,796	3,447,193	3,092,698
1,533	1,457	1,592	838	634	703	1,188	843
198,774	211,410	148,576	151,632	148,828	73,872	84,564	54,432
525,478	458,840	296,460	393,609	521,964	552,582	385,396	519,886
956,448	1,909,758	660,148	437,286	249,704	1,148,072	1,440,504	843,696
638,670	613,818	572,656	613,818	538,488	432,540	374,706	353,322
593,406	491,846	499,608	777,600	778,086	633,184	756,702	728,514
1,038,508	1,024,488	808,702	838,350	1,028,862	1,024,488	1,052,676	1,081,836
2,548,584	2,487,834	2,808,108	2,751,246	2,882,872	3,020,004	3,431,160	1,638,972
1,476,468	961,794	1,218,868	1,241,244	1,855,940	1,119,744	876,255	1,055,106
656,586	465,102	361,584	461,700	524,394	564,240	472,892	610,902
502,038	477,664	253,206	875,678	455,882	466,074	381,452	324,162
696,792	846,126	510,786	472,392	754,758	632,772	488,432	579,312
17,941,876	17,559,245	12,711,009	15,837,404	18,757,614	16,420,667	14,944,920	15,418,478
42,255,542	40,700,969	29,947,373	36,241,239	41,841,053	38,753,825	37,246,496	36,352,416

AUSTRALASIA—Continued.

Quantities and values of principal imports,

Articles.	1873.	1874.	1875.	1876.	1877.
QUEENSLAND.					
Apparel and slops.....dollars...	873, 218	400, 950	234, 252	86, 994	79, 218
Beer and ale.....gallons...	610, 382	687, 888	658, 083	640, 628	730, 845
Boots and shoes.....dollars...	486, 486	538, 463	485, 514	457, 700	513, 702
Flour and breadstuffs.....tons...	398, 034	506, 898	519, 534	570, 078	526, 824
Hardware and ironmongery.....dollars...	18, 240	19, 984	22, 928	22, 851	22, 971
Iron and steel.....dollars...	1, 153, 278	1, 282, 554	1, 188, 270	1, 210, 626	1, 670, 868
Machinery.....dollars...	493, 026	449, 064	558, 900	462, 186	467, 046
Leather.....dollars...	492, 804	491, 832	708, 588	524, 394	819, 398
Linen and drapery.....dollars...	251, 262	315, 900	319, 302	325, 134	432, 540
Oilmen's stores.....dollars...	62, 208	60, 000	58, 320	61, 722	65, 610
Rice.....tons...	1, 852, 146	1, 994, 544	2, 766, 312	2, 251, 152	2, 829, 492
Saddlery and harness.....dollars...	201, 204	189, 540	187, 596	163, 296	319, 788
Spirits:					
Brandy.....gallons...	1, 163	1, 107	2, 930	2, 760	5, 043
Rum.....gallons...	100, 602	88, 938	187, 596	163, 296	319, 788
Gin and geneva.....gallons...	136, 080	204, 006	189, 540	145, 314	133, 678
Stationery:					
Books.....dollars...	153, 254	213, 099	195, 112	175, 588	179, 207
Paper, ink, &c.....dollars...	837, 770	559, 872	491, 240	470, 448	573, 966
Sugar, unrefined.....pounds...	9, 278	12, 278	13, 684	13, 800	15, 065
Tea.....pounds...	11, 664	20, 898	24, 300	30, 132	28, 674
Tobacco, manufactured.....pounds...	67, 173	64, 511	53, 145	62, 576	85, 008
Wine.....gallons...	82, 134	74, 358	84, 078	77, 274	127, 818
All other articles.....dollars...	86, 508	85, 536	126, 860	143, 856	128, 790
Books.....dollars...	203, 634	153, 090	187, 596	196, 634	208, 960
Paper, ink, &c.....dollars...	3, 104, 200	1, 584, 000	3, 068, 400	2, 684, 000	853, 600
Sugar, unrefined.....pounds...	167, 670	94, 770	140, 454	170, 100	55, 404
Tea.....pounds...	1, 353, 575	1, 719, 294	1, 701, 843	1, 447, 541	2, 160, 674
Tobacco, manufactured.....pounds...	443, 718	541, 404	518, 662	428, 222	641, 520
Wine.....gallons...	429, 130	613, 515	554, 110	554, 110	646, 142
All other articles.....dollars...	153, 164	191, 484	161, 352	198, 285	240, 064
Cigars.....pounds...	17, 188	18, 592	20, 690	21, 864	19, 616
Wine.....gallons...	27, 216	33, 534	36, 936	35, 478	34, 020
All other articles.....dollars...	78, 032	77, 950	99, 875	69, 211	84, 849
Wine.....gallons...	162, 118	153, 576	189, 540	133, 164	168, 156
All other articles.....dollars...	5, 911, 290	0, 430, 020	6, 796, 496	6, 883, 820	9, 490, 297
Total imports.....dollars...	13, 316, 000	13, 772, 316	16, 175, 246	15, 195, 081	19, 759, 505
Overland imports of live stock included in totals.....dollars...			650, 754	693, 473	1, 917, 570
RECAPITULATION.					
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
New South Wales.....	50, 850, 778	54, 867, 382	65, 563, 344	66, 449, 808	70, 988, 076
Victoria.....	80, 854, 540	82, 396, 367	81, 093, 474	76, 328, 080	79, 521, 089
South Australia.....	18, 067, 746	19, 358, 838	20, 430, 468	22, 240, 235	22, 479, 979
Western Australia.....	1, 444, 878	1, 770, 498	1, 700, 028	1, 875, 960	1, 762, 722
Tasmania.....	5, 380, 832	6, 161, 435	5, 763, 678	5, 506, 395	6, 360, 141
New Zealand.....	81, 418, 879	89, 472, 006	89, 021, 776	33, 559, 131	33, 891, 152
Queensland.....	13, 316, 060	13, 772, 316	16, 175, 246	15, 195, 081	19, 759, 505
Total for Australasia.....	201, 433, 213	217, 818, 842	229, 748, 014	221, 154, 690	234, 702, 664

Quantities and value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
NEW SOUTH WALES.					
Coal and coke.....tons...	866, 022	979, 000	1, 043, 079	973, 181	1, 027, 040
Copper, raw.....tons...	2, 567, 052	3, 085, 128	3, 277, 584	3, 056, 940	3, 164, 892
Tissues, apparel, and hosiery.....dollars...	102, 544	111, 564	134, 238	109, 726	139, 721
Flour.....dollars...	1, 879, 362	2, 230, 254	2, 436, 804	1, 869, 642	2, 260, 686
Indian corn.....bushels...	636, 660	924, 372	957, 906	1, 092, 528	1, 510, 974
Hides and skins.....dollars...	291, 114	332, 424	314, 928	221, 102	444, 204
Leather.....dollars...	1, 201, 220	1, 025, 182	611, 360	594, 303	834, 107
Hardware.....dollars...	870, 426	1, 026, 376	581, 742	433, 512	676, 576
Hides and skins.....dollars...	286, 740	305, 208	355, 752	367, 416	380, 052
Leather.....dollars...	217, 242	249, 804	297, 256	408, 240	685, 746
Leather.....dollars...	501, 066	466, 074	538, 974	470, 448	482, 598

AUSTRALASIA—Continued.

including intercolonial trade—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
224,532	289,170	385,398	704,214	809,676	952,074	754,874	627,970
520,510	545,855	534,850	538,992	672,198	920,721	800,270	981,887
415,044	423,334	391,230	387,828	513,702	695,466	635,174	770,796
495,720	514,188	490,608	527,310	581,724	643,464	694,082	756,702
25,793	24,187	27,193	24,551	30,139	29,978	42,274	37,022
1,537,218	1,267,488	1,315,602	1,202,850	1,807,920	1,654,844	1,821,528	1,495,908
434,970	377,186	465,102	681,373	1,142,586	1,342,612	1,307,826	1,173,204
685,746	486,000	697,410	499,888	1,493,964	1,641,708	1,610,604	1,824,930
345,080	208,494	284,884	615,270	1,812,294	1,826,888	1,516,320	1,257,768
56,376	57,834	64,152	84,078	104,490	94,770	106,920	123,444
2,422,224	1,609,632	1,886,652	1,805,004	2,648,700	2,741,920	2,397,438	2,647,728
153,576	117,612	160,866	201,204	301,320	390,744	517,580	464,616
2,221	2,153	2,550	3,201	3,209	3,341	4,730	3,379
165,240	236,682	169,128	210,438	204,606	265,092	256,608	190,512
175,932	126,360	117,126	127,832	205,578	222,588	181,278	184,680
147,284	146,410	148,458	148,438	148,037	172,597	165,844	184,250
428,652	401,992	417,474	440,316	418,446	470,448	488,000	459,270
11,022	5,932	11,680	11,906	15,494	44,893	83,411	47,012
19,928	9,262	19,440	17,010	21,870	69,264	69,498	61,722
64,488	45,250	70,993	70,110	80,805	83,005	82,261	83,446
73,386	61,236	78,246	74,884	87,480	96,228	85,742	88,452
187,052	145,314	134,622	137,538	178,502	203,634	259,038	292,070
224,532	198,774	225,990	284,870	348,462	227,934	226,476	225,018
528,000	822,800	552,200	508,200	578,000	712,800	961,200	1,265,000
37,422	57,834	42,282	36,450	30,368	44,712	59,292	64,638
1,263,149	1,687,848	2,874,563	2,068,514	2,053,317	2,186,187	2,757,277	2,910,030
872,276	448,578	628,396	517,104	531,198	552,582	672,138	608,736
565,265	506,008	592,294	735,103	662,902	813,880	1,026,781	1,058,881
194,400	169,128	174,474	218,706	225,960	267,712	310,554	380,052
19,200	18,876	15,313	21,400	37,297	41,949	58,097	50,422
30,618	27,702	21,584	31,590	51,516	64,152	68,040	82,620
72,666	40,482	59,293	68,653	74,081	94,528	93,190	99,576
153,118	90,882	105,948	142,884	183,708	243,496	221,616	247,374
7,917,523	7,651,077	6,787,119	10,821,893	16,998,674	15,632,859	16,740,898	17,155,091
16,699,543	14,973,709	15,002,035	19,749,533	30,707,772	30,294,081	31,016,374	31,218,801
1,114,398	640,062	997,702	2,243,862	5,544,288	2,214,605	1,637,334	1,123,068
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
71,779,708	69,006,401	67,797,000	84,609,198	103,426,086	101,860,026	110,938,784	118,749,258
78,546,737	73,072,715	70,746,605	81,232,012	91,115,677	86,235,087	93,319,936	87,690,775
27,797,305	24,868,769	27,126,075	25,374,710	32,669,850	30,660,867	27,911,856	24,911,856
1,842,426	1,979,478	1,718,983	1,967,328	1,500,768	2,511,648	2,533,032	8,160,900
6,488,856	6,159,928	6,634,424	6,955,360	8,120,438	8,906,616	8,048,730	8,541,382
42,532,542	40,700,969	29,947,373	36,241,239	41,841,052	38,753,828	37,246,496	36,852,416
16,699,543	14,973,709	15,002,035	19,749,533	30,707,772	30,294,081	31,016,374	31,218,801
245,654,117	220,261,979	218,992,894	256,149,380	309,311,643	299,234,213	311,045,158	311,218,801

exports, including intercolonial trade.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
1,128,049	1,118,135	845,241	1,159,212	1,416,963	1,699,452	1,978,576	1,908,918
8,449,142	8,884,604	2,078,136	2,059,182	3,171,150	4,069,278	4,656,250	4,710,812
123,894	183,056	139,121	151,482	150,266	223,862	233,910	113,083
1,968,786	1,614,724	2,074,784	2,148,606	1,820,556	1,833,270	2,915,514	1,796,742
1,641,222	1,741,624	1,948,874	2,068,416	2,192,848	2,045,674	2,124,792	2,224,422
296,946	188,668	279,450	1,043,928	1,120,716	940,410	857,790	435,456
722,632	835,697	757,104	673,771	170,299	303,894	210,953	399,526
694,980	855,498	414,558	498,636	230,850	237,654	249,804	348,462
219,802	323,190	425,786	481,626	614,790	692,650	661,446	584,658
437,400	682,844	937,980	1,064,840	1,803,938	1,570,266	1,455,084	1,452,168
462,186	328,536	529,740	708,102	753,300	541,690	664,848	667,162

AUSTRALASIA—Continued.

Quantities and value of principal exports,

Articles.	1873.	1874.	1875.	1876.	1877.
NEW SOUTH WALES—continued.					
Live stock:					
Horses..... { number..	1,254	2,908	2,018	1,469	5,304
{ dollars..	179,334	244,458	249,604	204,606	418,446
Cattle..... { number..	8,598	2,513	2,987	2,522	57,980
{ dollars..	188,568	170,100	186,138	182,736	2,250,666
Meats, preserved (not salted), exclusive of frozen meat..... { dollars..	676,026	626,454	444,690	712,476	811,134
Sugar:					
Refined..... { pounds..	2,129,312	2,400,968	5,606,272	11,721,024	9,115,456
{ dollars..	167,184	188,568	393,660	822,312	682,820
Unrefined..... { pounds..	1,560,792	1,084,804	2,061,696	862,400	1,016,284
{ dollars..	110,322	71,442	132,192	57,814	68,040
Tallow..... { pounds..	8,053,136	7,995,008	7,727,776	9,477,104	11,243,680
{ dollars..	618,678	552,582	542,376	665,820	799,956
Tea..... { pounds..	1,011,709	735,269	544,948	927,324	717,819
{ dollars..	377,146	251,202	196,344	335,828	273,132
Tin, ingots..... { pounds..	2,303,616	11,411,004	13,570,032	13,203,568	17,241,616
{ dollars..	591,462	2,217,132	2,309,472	1,904,056	2,905,808
Ore..... { pounds..	8,760,600	2,177,728	44,912	19,600	1,844,976
{ dollars..	1,279,638	305,694	4,860	1,555	148,716
Tobacco..... { pounds..	529,001	412,893	363,743	681,116	544,712
{ dollars..	175,832	156,034	123,444	228,906	235,234
Wool..... { pounds..	40,462,355	43,520,010	47,628,810	54,672,771	107,807,141
{ dollars..	13,528,782	14,816,102	15,519,924	15,599,142	27,545,276
All other merchandise..... { dollars..	5,925,593	22,841,538	27,402,217	20,004,478	9,163,577
Total exports of merchandise, dollars.....	31,068,316	50,561,006	56,266,067	53,106,977	54,711,013
Gold:					
Coin..... { dollars..	10,444,832	8,358,718	10,121,436	7,058,874	8,828,190
Dust and bar..... { dollars..	8,758,724	1,070,892	57,834	873,248	252,234
Total gold..... { dollars..	14,203,556	9,429,610	10,179,270	8,032,122	9,080,424
Grand total exports..... { dollars..	45,271,872	59,990,616	66,445,337	63,199,099	64,791,437
VICTORIA.					
Boots and shoes..... { tons.....	273,132	376,164	369,360	400,950	506,412
{ dollars..	3,967	3,676	1,817	2,090	8,625
Flour and biscuit..... { tons.....	299,876	292,572	172,044	194,886	685,746
Grain:					
Oats..... { tons.....	400	162	821	2,944	3,486
{ dollars..	19,926	10,692	43,740	126,360	169,128
Wheat..... { tons.....	672	287	58	65	2,179
{ dollars..	33,534	14,580	2,347	2,323	119,556
All other..... { tons.....	3,878	3,850	8,832	4,736	5,722
{ dollars..	347,004	315,414	321,246	454,294	421,862
Total grain..... { tons.....	4,950	4,805	4,711	7,745	11,387
{ dollars..	400,644	340,686	367,333	582,977	710,046
Hides..... { number..	5,078	3,511	2,531	3,323	2,913
{ dollars..	29,046	18,954	13,008	14,580	14,580
Leather..... { number..	1,071,144	940,896	1,195,560	953,046	1,007,478
{ dollars..	20,340	21,449	24,121	16,304	345,447
Live stock..... { number..	502,496	590,152	713,062	743,580	1,543,536
{ pounds..	0,251,256	0,760,913	5,033,437	0,410,335	4,911,712
{ dollars..	1,173,290	854,874	652,698	809,676	599,724
Meats, fresh (frozen)..... { pounds..					
{ dollars..					
Potatoes..... { tons.....	9,669	12,408	19,898	21,014	23,375
{ dollars..	135,594	193,858	308,610	316,872	378,108
Skins..... { number..				1,695,093	1,401,985
{ dollars..	230,850	258,056	231,822	275,562	158,436
Soap..... { pounds..	25,728	32,562	26,244	33,564	38,894
Sugar..... { pounds..	719,760	1,348,164	1,564,920	1,189,728	1,403,512
{ dollars..	13,373,120	13,592,320	13,910,400	11,424,000	6,044,000
Tallow..... { pounds..	1,132,340	970,056	987,552	848,030	429,890
{ dollars..	3,012,257	3,035,502	3,151,102	3,221,104	3,756,956
Tea..... { pounds..	1,311,228	1,160,082	1,206,232	1,220,346	1,372,436

*The "overland exports" are not included in the totals for 1873; they amounted to \$11,863,600 "totals," but not in the "details" for the years 1874, 1875, and 1876, which accounts for the large land export."

AUSTRALASIA—Continued.

including intercolonial trade—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
3,721	2,286	4,050	3,501	3,048	2,798	5,042	4,778
422,334	162,224	304,722	282,866	335,840	315,900	782,946	701,784
55,626	58,051	56,577	55,540	53,085	42,269	45,486	62,852
2,049,462	1,968,766	2,210,828	1,248,534	1,405,998	1,192,644	1,187,298	1,786,586
215,784	663,876	1,039,554	894,726	1,006,020	1,533,816	929,232	1,544,023
9,467,024	11,829,776	11,791,360	8,185,184	5,462,352	4,511,920	2,748,816	248,640
662,418	829,116	833,004	568,134	375,678	298,404	183,242	16,524
1,125,152	3,408,272	4,421,984	1,537,618	1,859,312	1,742,944	2,873,808	4,135,600
75,816	205,578	279,936	99,630	120,042	106,434	157,957	178,362
6,867,840	17,385,536	31,909,024	25,431,840	18,774,016	28,225,456	15,271,984	21,757,900
476,860	1,103,220	1,928,934	1,618,720	1,249,506	2,165,130	902,898	1,205,704
891,367	1,073,883	1,104,781	600,897	771,164	1,066,714	700,193	803,004
337,284	370,332	393,174	218,214	265,356	328,050	235,224	257,094
14,902,078	12,372,192	18,780,432	23,497,930	23,948,964	25,672,610	20,907,600	18,477,648
1,931,851	1,817,640	3,269,322	4,584,924	5,157,918	5,154,030	3,637,710	3,387,420
2,521,232	1,822,476	1,544,368	1,869,872	1,415,344	997,808	783,216	1,199,296
160,768	142,398	150,660	182,736	165,726	105,462	72,414	122,472
529,903	601,388	544,700	616,397	591,014	562,275	619,293	810,806
234,738	231,336	217,242	237,634	261,954	258,532	272,646	361,584
116,005,930	128,123,873	102,486,322	147,183,687	153,351,354	199,638,895	183,016,518	178,373,425
28,966,572	32,898,788	41,006,250	36,599,688	37,780,182	49,261,932	45,598,960	37,316,052
6,907,742	10,699,487	11,049,722	12,025,662	13,679,296	14,477,337	15,855,861	14,355,271
51,396,627	60,111,979	71,377,556	68,533,824	73,010,662	83,428,283	83,671,846	73,316,367
8,037,954	8,379,158	4,036,230	7,938,810	7,509,186	7,605,414	4,672,796	6,728,835
673,596	110,808	38,394	1,527,984	724,626	612,360	357,696	347,679
8,701,550	3,489,966	4,074,624	9,466,794	8,233,812	8,217,774	5,030,492	7,076,51
60,068,177	63,601,945	75,452,180	78,000,618	81,244,474	96,646,057	88,702,338	80,392,861
609,444	623,022	598,406	451,980	354,780	311,040	279,450	226,962
16,700	11,026	25,964	20,746	25,238	24,696	32,464	37,436
1,082,322	680,886	1,379,268	1,173,204	1,649,970	1,436,616	1,651,428	1,765,564
1,110	1,391	1,647	1,911	3,015	1,436	2,113	1,401
59,778	53,946	53,946	62,694	138,510	52,002	76,768	49,572
9,094	15,977	75,408	91,678	68,218	39,795	203,182	64,836
430,596	642,978	2,931,572	3,349,948	3,050,136	1,731,132	6,948,342	1,985,310
7,129	5,708	6,401	7,728	7,592	5,752	7,253	2,230
503,496	428,652	463,644	507,870	454,896	433,026	577,308	199,746
17,333	23,076	83,456	101,817	78,825	46,983	212,548	68,467
993,870	1,125,576	3,449,162	3,920,512	3,643,542	2,216,160	7,602,498	2,234,628
8,765	27,213	10,004	7,689	10,764	5,753	10,030	12,170
45,664	98,172	48,600	30,618	33,048	19,926	42,282	50,658
1,061,424	1,150,848	1,549,368	1,566,864	1,714,608	1,849,716	1,805,400	1,812,299
466,000	131,618	114,643	189,222	234,674	272,168	412,849	1,013,544
2,142,774	1,561,518	1,654,844	2,230,740	2,063,142	3,911,328	3,708,180	4,387,888
2,986,340	2,867,673	6,142,854	4,028,160	3,074,341	3,228,938	2,800,403	1,492,817
363,528	335,626	693,036	497,664	380,612	373,734	270,216	187,514
				2,132,368	1,113,728	4,633,776	4,379,984
				94,284	59,292	258,552	299,459
18,803	16,103	23,972	18,506	31,236	28,325	42,622	39,902
354,780	291,114	283,838	240,422	535,086	538,974	723,654	503,496
1,008,855	1,399,857	4,275,376	5,741,718	6,134,188	6,682,519	6,625,628	4,563,146
95,742	149,202	428,166	528,282	628,308	671,050	679,914	447,606
73,866	52,974	60,750	76,802	76,802	63,606	78,732	91,868
1,262,142	1,119,258	1,206,735	1,303,452	1,200,538	1,258,254	1,103,250	806,958
7,387,520	12,280,160	15,103,600	10,765,780	13,712,240	14,940,800	17,030,720	13,624,000
504,954	733,374	935,064	1,202,364	919,968	1,129,464	1,296,648	757,674
3,320,025	3,507,646	3,373,399	4,111,838	4,563,320	6,760,124	4,977,480	5,787,927
1,255,824	1,257,282	1,258,740	1,422,036	1,613,034	1,918,700	1,794,798	1,802,088

and 916,466,652, for the years 1872 and 1873, respectively. The "overland exports" are included in the amounts of "all other merchandise" for these years. It is evident that "wool" was the principal "over-

AUSTRALASIA—Continued.

Quantities and value of principal exports

Articles.	1873.	1874.	1875.	1876.	1877.
VICTORIA—continued.					
Wool	{ pounds 74, 893, 882	83, 662, 284	85, 064, 952	106, 265, 877	98, 468, 298
.....	{ dollars 27, 889, 596	30, 976, 182	29, 638, 142	31, 171, 068	27, 560, 574
All other merchandise	dollars 8, 634, 752	10, 361, 382	11, 698, 776	12, 983, 009	13, 428, 126
Total exports of merchandise, dollars	43, 829, 433	48, 736, 080	49, 097, 520	51, 623, 147	49, 849, 943
Precious metals:					
Gold, dust and bullion	{ ounces 1, 291, 014	1, 012, 153	794, 164	525, 630	521, 976
.....	{ dollars 25, 119, 396	19, 090, 039	15, 444, 594	10, 253, 496	10, 157, 886
Gold, specie	dollars 5, 836, 766	6, 584, 328	7, 187, 940	7, 113, 806	13, 680, 414
Silver, specie	dollars 93, 512	24, 800	37, 420	34, 992	26, 730
Total precious metals	dollars 30, 540, 474	26, 807, 666	22, 669, 954	27, 371, 704	23, 885, 030
Grand total exports	dollars 74, 369, 907	75, 043, 746	71, 767, 474	68, 994, 941	73, 714, 973
SOUTH AUSTRALIA.					
Flour	{ tons 64, 031	65, 673	85, 354	79, 732	62, 786
.....	{ dollars 3, 582, 792	3, 807, 710	3, 982, 281	3, 872, 934	4, 256, 874
Wheat	{ bushels 4, 477, 200	1, 794, 941	4, 478, 992	6, 894, 349	1, 113, 167
.....	{ dollars 4, 692, 816	2, 083, 998	4, 040, 118	5, 693, 400	1, 416, 204
Copper	{ tons 7, 838	7, 425	7, 663	6, 209	6, 761
.....	{ dollars 3, 091, 932	2, 708, 478	2, 809, 566	2, 108, 754	2, 269, 620
Ores	{ tons 30, 669	25, 624	29, 756	25, 423	20, 772
.....	{ dollars 656, 586	665, 334	853, 030	800, 928	807, 246
Wool	{ pounds 85, 973, 434	39, 884, 024	44, 508, 674	43, 068, 795	50, 616, 962
.....	{ dollars 8, 789, 796	9, 714, 654	10, 041, 732	8, 924, 418	10, 640, 484
All other articles	dollars 1, 475, 817	1, 677, 092	1, 462, 274	1, 957, 578	2, 379, 824
Total exports of merchandise, dollars	22, 289, 239	20, 057, 236	23, 189, 004	23, 358, 132	21, 769, 752
Bullion and specie	dollars 7, 760	740, 664	103, 782	48, 690	715, 878
Grand total exports	dollars 22, 296, 999	21, 897, 900	23, 352, 786	23, 406, 782	22, 485, 630
TASMANIA.					
Bark	{ tons 8, 267	5, 455	7, 288	9, 738	6, 266
.....	{ dollars 148, 230	107, 406	196, 830	270, 216	163, 824
Butter and cheese	dollars 11, 664	34, 020	38, 880	53, 946	42, 768
Fruits and preserves	dollars 477, 738	583, 686	566, 676	664, 848	715, 878
Grain: oats	{ bushels 418, 456	219, 688	881, 079	271, 496	336, 346
.....	{ dollars 333, 896	211, 410	272, 160	159, 894	232, 794
Hops	{ pounds 826, 733	819, 145	761, 444	848, 406	726, 018
.....	{ dollars 199, 260	205, 578	267, 796	224, 532	188, 624
Oil: sperm	{ tons 630	264	814	518	450
.....	{ dollars 252, 720	112, 226	101, 088	219, 672	162, 324
Potatoes	{ tons 7, 524	5, 396	8, 874	6, 607	9, 331
.....	{ dollars 71, 442	54, 432	112, 266	88, 452	128, 304
Timber	dollars 307, 158	366, 444	430, 596	316, 872	354, 294
Tin: ore and smelted	{ tons 4	159	410	1, 808	6, 435
.....	{ dollars 1, 069	85, 478	152, 118	485, 514	1, 005, 634
Wool	{ pounds 4, 243, 463	5, 050, 220	6, 199, 248	6, 848, 517	8, 016, 396
.....	{ dollars 1, 526, 040	1, 704, 402	2, 106, 810	2, 138, 942	2, 541, 294
All other articles	dollars 1, 018, 991	1, 081, 973	1, 061, 253	919, 415	1, 842, 386
Total exports	dollars 4, 842, 702	4, 497, 055	5, 826, 463	5, 540, 303	6, 876, 474
NEW ZEALAND.					
Flax (phormium)	{ tons 7, 357	2, 823	728	1, 033	1, 296
.....	{ dollars 698, 868	183, 222	56, 862	89, 424	94, 770
Grain:					
Barley	{ bushels 247	90, 081	91, 622	218, 550	107, 707
.....	{ dollars 544	109, 836	99, 030	207, 036	116, 154
Oats	{ bushels 49, 487	135, 963	639, 325	1, 263, 927	354, 604
.....	{ dollars 36, 478	149, 688	453, 438	675, 746	232, 308
Wheat	{ bushels 538, 237	933, 814	548, 995	686, 059	859, 795
.....	{ dollars 624, 906	1, 148, 904	558, 900	744, 552	992, 412
Total grain	{ bushels 587, 971	959, 358	1, 279, 042	2, 168, 574	1, 322, 196
.....	{ dollars 662, 018	1, 408, 428	1, 111, 968	1, 637, 334	1, 340, 874

AUSTRALASIA—Continued.

including intercolonial trade—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
101,809,809 28,287,086 15,560,750	95,628,281 25,680,256 12,976,544	112,486,206 81,189,050 13,032,365	103,449,800 26,487,486 14,800,255	108,028,601 23,686,636 15,480,461	109,616,610 29,425,356 15,574,166	119,542,407 30,826,494 16,013,038	106,278,038 24,436,080 16,529,119
53,643,710	47,841,198	58,402,912	55,956,679	60,654,161	60,658,441	68,134,624	56,339,346
373,683 7,263,130 11,618,802 8,260	305,956 5,961,070 6,575,094 159,894	241,987 4,708,994 14,189,256 243,000	413,189 8,003,934 15,022,260 2,333	373,190 7,275,906 10,731,852 38,880	417,304 8,093,358 10,941,315 5,846	189,866 8,604,288 6,070,140 5,832	..... ..... 19,227,132 15,066
18,895,192	12,086,068	19,136,250	23,028,527	18,046,638	19,040,019	9,773,460	19,242,198
72,538,902	60,527,266	77,530,162	78,985,206	78,700,799	79,698,460	77,908,084	75,581,544
69,755 3,898,692 3,632,720 3,957,012 4,743 1,418,634 29,070 761,076 67,962,463 11,748,564 3,676,074	78,980 3,936,114 3,939,379 3,975,966 4,745 1,294,218 12,668 656,100 49,402,149 9,646,614 3,540,996	87,950 4,070,736 8,502,955 7,680,004 8,645 1,133,624 16,388 548,694 51,644,118 10,036,872 3,268,655	81,110 3,776,706 2,791,893 2,499,498 4,282 1,280,124 24,336 758,646 50,336,040 9,291,834 3,498,220	79,190 4,364,766 3,003,019 3,088,530 4,108 1,265,547 29,317 970,542 57,926,396 11,666,916 4,263,140	71,444 3,711,582 1,467,125 1,290,616 3,756 1,141,128 22,571 776,628 55,463,920 11,697,048 4,409,274	95,324 3,862,728 9,604,288 8,232,480 5,120 1,398,708 29,553 1,206,738 64,112,240 12,716,676 4,599,198	............................................................
25,400,052	23,050,008	26,933,585	21,105,028	25,619,441	23,026,486	32,016,708	.....
565,248	96,714	159,408	316,686	429,624	707,130	174,474	.....
26,025,300	23,146,723	27,092,993	21,421,714	26,049,065	23,733,616	32,191,182	.....
5,802 151,146 3,941 736,290 151,631 140,940 684,848 160,866 279 85,536 7,827 90,896 364,780 6,701 1,508,858 7,512,663 2,328,912 832,538	6,510 149,668 2,892 737,748 109,086 76,302 558,622 128,790 245 67,068 10,431 181,764 290,142 5,109 1,473,552 7,385,002 1,978,992 1,236,408	5,747 137,052 644,922 181,019 90,882 589,722 150,174 335 110,322 7,155 73,386 253,720 4,427 1,660,662 9,025,228 2,635,092 1,592,788	9,899 235,224 11,664 756,216 184,032 99,144 430,180 115,182 342 93,812 14,342 179,834 275,076 4,618 1,626,888 8,269,724 2,422,224 1,546,355	10,848 276,534 36,450 849,042 323,906 247,374 480,287 131,220 184 63,180 20,676 296,890 256,122 4,109 1,754,460 7,748,512 2,102,622 1,698,521	13,413 451,008 7,290 856,532 165,108 76,714 784,087 656,100 341 96,228 16,500 170,586 224,046 4,616 1,829,304 8,257,765 2,188,944 1,858,824	13,500 421,362 12,495 831,000 124,356 82,620 701,161 174,980 290 72,414 12,318 150,174 247,874 4,152 1,464,804 8,215,101 2,304,496 1,510,927	13,761 406,296 17,010 801,300 27,695 16,524 791,379 134,622 146 32,562 24,230 281,394 219,186 4,751 1,737,936 5,774,142 1,266,030 2,471,698
6,394,253	6,322,346	7,348,000	7,560,119	7,714,715	8,415,576	7,172,660	6,384,548
722 52,488	547 89,366	1,042 77,274	1,576 131,706	2,430 207,522	2,363 182,736	1,737 138,510	1,190 79,218
102,472 119,070 302,772 287,226 1,701,018 2,058,780	106,692 132,192 842,649 542,682 2,518,457 2,531,065	476,520 412,128 1,908,832 824,742 3,120,463 3,075,894	494,911 388,814 1,499,299 693,036 3,701,268 3,623,822	113,334 118,584 979,684 671,632 3,183,021 3,577,932	144,923 147,258 1,619,768 828,630 4,897,540 5,187,078	128,450 121,986 2,474,601 1,299,078 2,706,755 2,122,862	286,456 163,782 2,817,000 1,265,544 1,359,119 883,548
2,106,257 2,465,076	3,467,798 3,206,139	5,505,815 4,312,764	5,695,478 4,705,172	4,281,639 4,368,168	6,662,231 6,162,966	5,309,809 3,543,426	4,462,575 2,312,674

AUSTRALASIA—Continued.

Quantities and value of principal exports,

Articles.	1873.	1874.	1875.	1876.	1877.
NEW ZEALAND—continued.					
Kauri gum	{ tons..... 2, 613	2, 876	3, 648	3, 234	4, 090
.....	{ dollars..... 416, 988	388, 800	678, 110	530, 712	574, 938
Meat:					
Preserved	{ pounds..... 6, 657, 178	2, 798, 432	330, 624	1, 045, 856	2, 046, 464
.....	{ dollars..... 748, 440	381, 510	35, 964	108, 864	263, 496
Frozen	{ pounds.....				
.....	{ dollars.....				
Potatoes	{ tons..... 610	200	548	1, 471	4, 684
.....	{ pounds..... 11, 178	5, 346	13, 122	25, 758	69, 012
Tallow	{ pounds..... 4, 462, 416	4, 865, 952	4, 058, 880	6, 919, 920	10, 362, 240
.....	{ dollars..... 326, 106	317, 844	271, 674	534, 114	761, 076
Timber of all kinds	{ pounds..... 215, 784	230, 850	195, 372	244, 458	248, 832
.....	{ dollars..... 41, 587, 040	46, 855, 012	54, 401, 540	30, 853, 454	64, 481, 324
Wool	{ pounds..... 13, 148, 244	13, 764, 006	16, 515, 252	16, 503, 588	17, 626, 254
All other merchandise	{ dollars..... 2, 741, 894	3, 117, 059	3, 780, 740	3, 400, 126	3, 833, 078
Total merchandise	{ dollars..... 17, 608, 134	18, 205, 415	21, 485, 231	21, 407, 620	23, 576, 686
Gold, exclusive of specie	{ dollars..... 9, 658, 264	7, 315, 758	6, 841, 908	6, 165, 396	7, 174, 818
Grand total exports	{ dollars..... 27, 266, 398	25, 521, 173	28, 327, 142	27, 573, 016	30, 751, 504
QUEENSLAND.					
Copper:					
Ore	{ tons..... 405	153	234	52	44
.....	{ dollars..... 39, 366	17, 982	27, 702	7, 290	8, 262
Smelted	{ tons..... 2, 787	1, 978	1, 446	2, 308	2, 150
.....	{ dollars..... 920, 970	709, 580	512, 730	830, 574	513, 216
Cotton	{ pounds..... 1, 373, 216	979, 875	314, 454	137, 812	221, 589
.....	{ dollars..... 236, 682	159, 408	38, 852	17, 010	33, 534
Hides and skins	{ dollars..... 450, 522	430, 596	390, 744	387, 342	494, 748
Live stock (overland)	{ dollars..... 1, 879, 362	1, 732, 104	1, 211, 112	900, 558	1, 252, 908
Meats preserved, not salted	{ dollars..... 319, 788	316, 386	258, 552	463, 644	436, 428
Sugar	{ pounds..... 3, 206, 000	9, 967, 712	6, 416, 928	1, 631, 728	13, 309, 632
.....	{ dollars..... 198, 288	526, 824	340, 200	104, 976	178, 202
Tallow	{ pounds..... 2, 149, 728	4, 147, 472	3, 101, 728	4, 345, 600	4, 834, 638
.....	{ dollars..... 247, 374	208, 980	208, 980	327, 078	354, 780
Tin:					
Ore	{ tons..... 6, 006	5, 017	4, 246	4, 580	3, 547
.....	{ dollars..... 1, 802, 574	1, 231, 524	926, 802	807, 732	596, 822
Smelted	{ tons..... 260	1, 353	660	331	188
.....	{ dollars..... 127, 818	510, 786	229, 392	102, 060	52, 002
Wood	{ pounds..... 132, 192	129, 276	130, 734	179, 820	173, 016
Wool	{ pounds..... 19, 763, 053	20, 859, 840	20, 145, 914	22, 919, 560	23, 990, 485
.....	{ dollars..... 6, 680, 070	6, 905, 574	6, 678, 760	7, 288, 056	7, 288, 542
All other merchandise	{ dollars..... 627, 796	487, 697	498, 280	722, 002	1, 284, 769
Total merchandise	{ dollars..... 13, 732, 602	13, 366, 607	11, 418, 842	12, 138, 142	13, 366, 729
Gold dust and bars	{ ounces..... 194, 896	375, 587	391, 515	374, 774	353, 266
.....	{ dollars..... 3, 483, 618	6, 500, 646	7, 330, 854	6, 940, 040	6, 351, 506
Grand total exports	{ dollars..... 17, 216, 550	19, 957, 343	18, 747, 696	19, 078, 222	19, 718, 235
RECAPITULATION.					
New South Wales:					
Merchandise	31, 068, 316	50, 561, 006	56, 266, 067	55, 166, 977	54, 711, 013
Gold	14, 203, 556	9, 438, 610	10, 179, 270	8, 032, 122	9, 080, 424
Total	45, 271, 872	59, 999, 616	66, 445, 337	63, 199, 099	63, 791, 437
Victoria:					
Merchandise	48, 829, 433	48, 736, 080	49, 097, 520	51, 823, 147	49, 849, 943
Gold and silver	30, 540, 474	26, 307, 666	22, 669, 054	17, 371, 704	23, 865, 030
Total	79, 369, 907	75, 043, 746	71, 767, 474	69, 194, 851	73, 714, 973
South Australasia:					
Merchandise	22, 289, 230	20, 657, 236	23, 189, 004	23, 358, 132	21, 769, 752
Bullion and silver	7, 760	740, 664	163, 782	43, 600	715, 878
Total	22, 296, 990	21, 397, 900	23, 352, 786	23, 401, 732	22, 485, 630
Western Australia:					
Merchandise	1, 381, 679	2, 131, 742	1, 931, 329	1, 930, 829	1, 814, 481
Precious metals	7, 290	1, 021			
Total	1, 388, 969	2, 132, 763	1, 931, 329	1, 930, 829	1, 814, 481

AUSTRALASIA—Continued.

including intercolonial trade—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
3,857 646,880	2,728 716,850	5,291 1,180,008	6,114 1,233,468	6,196 1,265,544	7,200 1,635,876	7,159 1,662,092	6,581 1,457,028
3,179,904 361,548	2,381,390 265,842	1,712,480 187,596	1,074,640 108,864	2,802,108 264,384 1,779,828	3,868,368 353,808 9,863,424 574,938	3,101,392 287,712 28,457,968 1,677,186	4,047,904 394,605 33,204,976 1,617,154
10,494 170,334	1,937 42,768	11,127 112,752	13,552 156,286	23,106 305,208	23,106 130,248	21,531 260,010	15,716 187,586
11,242,580 887,510 191,484	10,388,520 707,610 176,932	11,305,201 711,090 232,720	9,312,600 586,116 359,154	12,184,480 1,402,580 579,798	15,812,720 1,402,580 736,776	16,896,240 1,141,128 784,150	15,533,280 890,220 784,964
50,270,256 16,008,008 5,040,226	62,220,810 15,174,304 5,338,444	66,869,150 15,402,798 7,075,551	59,521,504 14,162,040 8,004,966	65,856,867 16,162,228 9,401,184	68,182,450 14,665,385 10,669,027	81,139,028 15,890,050 7,218,048	86,507,841 15,877,755 7,756,460
23,289,490 6,046,812	22,421,756 5,514,156	24,925,415 5,050,658	24,610,891 4,844,934	27,878,418 4,470,463	30,149,204 4,337,064	28,867,376 5,806,540	28,816,781 4,323,122
29,336,802	27,935,912	30,874,073	29,455,828	32,357,880	34,486,268	34,173,916	33,144,903
94 11,178 546	32 4,374 559	17 4,374 848	370 85,256 266,269	11 3,159 248,029	213 11,664 6,318	48 4,374 89	63 6,318
159,408 43,532 5,882	158,436 26,281 3,227	83,796 108,260 16,524	95,256 266,269 42,768	3,159 248,029 39,384	6,318 80,689 16,524	10,206 23,856 5,346	19,241 2,964
328,650 1,534,802 81,104	346,518 1,516,866 119,556	422,384 1,123,632 884,912	509,328 1,220,346 203,898	484,056 1,337,472 587,087	662,418 8,026,332 758,160	531,198 2,399,382 847,004	610,912 3,255,229 863,136
9,261,952 578,840 1,677,872 116,154	23,103,128 1,840,888 5,779,078 351,864	23,020,256 1,419,120 12,909,456 787,320	17,016,914 1,006,992 13,612,368 866,538	13,873,744 740,178 9,554,720 629,370	44,542,960 2,620,512 13,623,904 872,856	41,802,016 2,211,300 6,877,088 869,800	83,918,576 3,508,920 7,632,576 474,822
2,627 365,472 235	3,818 468,504 808	2,708 520,020 482	2,714 583,228 537	4,002 1,016,226 660	4,763 1,188,624 713	4,828 992,412 852	2,999 677,484 288
60,750 374,660 21,663,122 2,762,562 1,016,888	116,154 359,640 22,582,834 6,019,110 911,462	174,474 204,120 24,860,728 6,743,250 875,723	224,046 250,290 25,388,013 6,473,034 1,175,877	295,488 148,716 24,763,140 6,458,940 1,405,853	294,030 124,902 43,281,696 11,070,487 1,628,403	118,298 59,778 85,525,477 9,183,427 1,897,192	84,078 54,918 42,472,071 8,649,842 1,855,655
10,244,540	11,716,099	12,769,601	12,710,601	13,144,939	22,251,200	18,229,277	20,043,777
283,592 5,115,150	281,552 4,978,238	228,120 8,988,602	250,782 4,495,500	230,090 4,032,343	193,994 8,892,979	261,824 4,485,780	808,848 5,439,166
15,859,690	16,669,337	16,758,203	17,204,101	17,177,281	25,644,179	22,715,057	25,482,943
51,896,627 8,701,550 60,098,177	60,111,979 8,489,966 63,601,945	71,377,556 4,074,624 75,452,180	68,533,824 9,468,794 76,000,618	73,010,692 8,233,812 81,244,474	88,428,288 8,217,774 96,646,057	83,671,846 5,030,492 88,702,338	73,816,967 7,076,514 80,392,881
53,643,710 18,895,192 72,538,902	47,841,198 12,686,068 60,527,266	58,402,912 19,136,250 77,539,162	55,956,670 23,028,527 78,983,206	60,654,161 18,046,638 78,700,799	60,658,441 19,040,019 79,698,466	68,134,624 17,743,460 77,908,084	56,339,346 19,243,198 75,581,544
25,460,052 665,248 20,025,300	23,050,408 96,714 23,146,722	26,933,585 150,408 27,092,993	21,105,028 316,686 21,421,714	25,619,441 429,624 26,049,065	23,026,486 707,130 23,733,616	32,016,708 174,474 32,191,182	...............
2,082,461	2,081,383	2,421,015	2,443,462	2,833,623	2,172,469	1,971,653	2,170,922
2,082,461	2,431,383	2,421,015	2,443,462	2,833,623	2,172,469	1,971,653	2,170,922

AUSTRALASIA—Continued.

Quantities and values of principal exports,

Articles.	1873.	1874.	1875.	1876.	1877.
RECAPITULATION—Continued.					
Tasmania:					
Merchandise.....	4, 342, 702	4, 497, 055	5, 326, 463	5, 540, 303	6, 876, 474
Precious metals.....					
Total.....	4, 342, 702	4, 497, 055	5, 326, 463	5, 540, 303	6, 876, 474
New Zealand:					
Merchandise.....	17, 608, 134	18, 205, 415	21, 483, 234	21, 407, 620	23, 576, 686
Gold.....	9, 658, 264	7, 315, 758	6, 841, 908	6, 165, 396	7, 174, 818
Total.....	27, 266, 398	25, 521, 173	28, 327, 142	27, 573, 016	30, 751, 504
Queensland:					
Merchandise.....	13, 732, 902	13, 366, 097	11, 416, 842	12, 138, 142	13, 366, 729
Gold dust and bars.....	8, 483, 618	6, 590, 616	7, 330, 854	6, 940, 080	6, 351, 506
Total.....	17, 216, 550	19, 957, 343	18, 747, 696	19, 078, 222	19, 718, 235
Grand total:					
Merchandise.....	134, 252, 405	158, 155, 231	168, 712, 459	171, 165, 150	171, 965, 078
Gold and silver.....	57, 900, 992	50, 894, 365	47, 185, 768	38, 557, 993	47, 187, 656
Total.....	192, 153, 397	208, 549, 596	215, 898, 227	209, 723, 143	219, 152, 734

FIJI.

Value of imports from

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
British Possessions.....				453, 833	607, 748
Polynesian Islands.....				1, 919	4, 967
All other countries.....					32, 965
Total imports.....				460, 752	645, 680

Value of exports, domestic and

Countries.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
British Possessions.....				323, 161	481, 077
Foreign countries.....				179, 650	203, 668
Total exports.....				502, 811	684, 745
Domestic exports.....				392, 620	555, 109
Foreign exports.....				110, 191	129, 636

AUSTRALASIA—Continued.

including intercolonial trade—Continued.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
6,394,253	6,323,846	7,848,000	7,560,119	7,714,715	8,415,576	7,172,680	6,384,548
6,394,253	6,323,846	7,848,000	7,560,119	7,714,715	8,415,576	7,172,680	6,384,548
23,289,490	22,421,756	24,923,415	24,610,894	27,878,418	30,149,204	28,067,876	28,816,781
6,046,812	5,514,156	5,950,658	4,844,934	4,479,463	4,237,064	5,306,540	4,328,122
29,836,302	27,935,912	30,874,073	29,455,828	32,357,880	34,486,268	34,173,916	33,144,903
10,244,540	11,716,099	12,769,601	12,710,601	13,144,930	22,251,200	18,229,277	20,043,777
5,115,150	4,973,238	8,988,602	4,495,500	4,032,842	3,892,079	4,485,780	5,439,166
15,359,690	16,689,837	16,758,203	17,206,101	17,177,281	25,644,179	22,715,057	25,482,943
172,511,133	173,495,760	204,176,084	192,920,607	210,855,959	235,101,659	240,064,164	.....
39,323,952	26,760,142	32,809,542	42,152,441	85,221,878	85,694,966	24,770,746	.....
211,835,085	200,255,911	237,485,626	235,073,048	246,077,837	270,796,625	264,834,910	.....

FIJI.

the several countries.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 646,768	<i>Dollars.</i> 658,034	<i>Dollars.</i> 877,031	<i>Dollars.</i> 1,814,494	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
3,684	4,763	11,120	7,203	.....	.....	.....	.....
13,462	28,858	14,546	19,848	.....	.....	.....	.....
663,914	691,155	902,706	1,841,544	.....	.....	.....	.....

foreign, to the several countries.

1878	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i> 748,563	<i>Dollars.</i> 642,254	<i>Dollars.</i> 1,031,124	<i>Dollars.</i> 733,467	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
188,761	179,280	84,886	112,882	.....	.....	.....	.....
937,324	821,534	1,115,510	846,349	.....	.....	.....	.....
713,687	648,828	864,652	634,895	.....	.....	.....	.....
223,657	172,706	250,858	211,954	.....	.....	.....	.....

FIJI—Continued.

Value of principal

Articles.	1873.	1874.	1875.	1876.	1877.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Bags and sugar mats			11,005		
Beer, in wood and bottles			14,215		
Boots and shoes			9,313		
Breadstuffs			14,630		
Drapery			126,037		
Fish					
Galvanized iron			8,418		
Glassware and crockery			2,535		
Hardware			38,117		
Live stock			34,980		
Machinery			37,828		
Meats					
Oils					
Pickles and oilmen's stores			92,558		
Ship-chandlery			12,168		
Soap					
Spirits and wines			27,927		
Stationery and paper			13,103		
Tea					
Timber, rough and dressed			14,949		
Vegetables and green fruit					
Wooden ware and furniture			9,130		
All other articles			46,022		
Total imports			512,930	460,752	645,680

Quantities and value of principal

Articles.	1873.	1874.	1875.*	1876.	1877.
Bêche-de-mer	dollars.		17,618	12,150	17,010
Candle-nuts	dollars.		825	8,748	14,774
Copra	dollars.		114,220	223,074	385,684
Cotton	{ bales			1,125	769
Curiosities	{ dollars		161,630	102,546	76,302
Fiber	{ bales				
	{ dollars		11,672		
Fruit, green	dollars.		487		
Maine	dollars.		45,065	58,228	33,783
Peanuts	{ bags			510	1,967
	{ dollars		1,216	2,220	14,580
Pearl shell	dollars.		5,165	6,804	5,346
Sugar	dollars.		5,120	50,544	78,732
Wool	dollars.		425	724	1,215
All other	dollars.		27,759	37,773	52,115
Total exports	dollars.		390,797	502,811	684,745
Domestic exports	dollars.		390,797	392,620	555,109
Foreign exports	dollars.			110,191	129,636

* Domestic exports only.

FIJI—Continued.

articles imported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
11,178	17,010	12,150					
20,898	31,590						
13,605	15,582	16,038					
16,524	20,412	25,272					
175,446	205,578	249,318					
6,318	9,720	8,824					
7,776	14,580	34,062					
12,150	15,552	20,894					
87,480	98,172	131,706					
22,842	27,216	20,412					
10,206	70,956	300,834					
23,814	34,020	36,440					
10,692	15,066	17,496					
7,776	12,636	10,440					
14,580	17,496	19,926					
6,804	9,284	9,185					
19,440	23,328	22,842					
8,748	13,608	19,440					
6,804	7,776	10,206					
32,076	17,010	89,424					
7,776	10,692	12,150					
14,580	10,206	11,064					
153,692	208,177	226,301					
663,914	691,155	902,701	1,341,544				

articles, domestic and foreign, exported.

1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.
17,982	12,150	4,860	4,096				
16,024	8,797	8,748	2,960				
508,892	298,404	529,740	416,988				
1,035	2,201	2,276	1,755				
100,602	213,840	221,180	170,586				
	7,776	11,178	5,832				
	4,566	8,175	6,525				
	13,122	23,814	4,549				
	15,066	25,272	25,418				
33,534	52,002	46,656	24,786				
638	2,213	2,343	606				
4,554	17,010	17,058	2,201				
5,006	4,800	3,995	1,973				
90,396	129,762	116,154	113,238				
7,436	2,473	3,183	4,714				
67,898	46,272	103,722	69,008				
937,324	821,534	1,115,510	846,349				
713,667	648,828	964,652	634,395				
223,657	172,706	250,858	211,954				

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CONSULS OF THE UNITED STATES.

No. 86.—NOVEMBER, 1887.



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1887.

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COMMERCE MANUFACTURES ETC.

No. 86.--NOVEMBER, 1887.

SUGAR INTERESTS OF AMERICA.

[Circular.]

DEPARTMENT OF STATE,
Washington, July 14, 1887.

*To the Consuls of the United States
in Central and South America, West Indies, and Mexico:*

GENTLEMEN: You are hereby instructed to report upon the following points, viz:

1. The production of sugar in your respective districts.
2. The local charges, if any, on plantations (taxes, etc.).
3. Export duties, if any.
4. Import duties on foreign sugars.
5. Extent of sugar trade, with countries of shipment.

I am, gentlemen, your obedient servant,

JAS. D. PORTER,
Assistant Secretary.

MEXICO.

REPORT OF CONSUL GREATHOUSE, OF TAMPICO.*

THE SUGAR-CANE IN MEXICO.

By way of digression, I will state that of the twenty-nine States and Territories comprising the Mexican Republic, sugar-cane (*Saccharum officinarum*) is grown and thrives with comparative vigor in twenty-one, viz: The Pacific States of Sonora, Sinaloa, Jalisco, Territory of Tepic, Colima, Michoacan, Guerrero, Oaxaca, and Chi-

* A report for the district of Tampico, from Consul Greathouse, will also be found in its proper place in this number,

apas; the Gulf States of Tamaulipas, Vera Cruz, Tabasco, Campeche, and Yucatan; the central States of Mexico, Morelos, Puebla, San Luis Potosi, and Queretaro; and the northern border States of Coahuila and Nuevo Leon.

Mr. Garcia Cubas, in his excellent work on the Topography of Mexico, writes as follows:

Sugar-cane is grown in the warm sections, and especially in the State of Morelos. There exists a zone notably productive of this plant, comprehending the State of Colima, the southern parts of Jalisco, Michoacan, Mexico, and Puebla, the State of Vera Cruz, a large part of Guerrero, and all of the State of Morelos, and extending through the States of Oaxaca, Tabasco, Chiapas, Campeche, and Yucatan; but the State of Morelos is considered the central place of production. In other warm sections of the Republic sugar-cane is produced, but its cultivation is not found so extensive as in the zone described.

PRODUCTION.

The valuation of the average annual production of sugar since the year 1883 is stated by States, approximately, in the following table:

Value of the average annual production of Sugar, approximately, by States, from 1883 to 1886, inclusive.

States.	Valuation.	States.	Valuation.
Morelos	\$1,667,000	Sonora	\$250,000
Vera Cruz	1,500,000	Colima	240,000
Michoacan	860,000	San Luis Potosi	180,000
Puebla	660,000	Tabasco	150,000
Nuevo Leon	640,000	Campeche and Isla del Carmen	180,000
Jalisco, and Tepic Territory	460,000	Mexico	180,000
Yucatan	450,000	Guerrero	100,000
Oaxaca	418,000	Coahuila	55,000
Sinaloa	380,000	Chiapas	50,000
Tamaulipas	270,000		
Queretaro	260,000	Total	8,875,000

EXPORTATION.

The exportation of sugar from Mexico is confined principally to a few coast-lying States, easily accessible to the Gulf ports of Vera Cruz, Frontera, and Progreso, and which produce a surplus above the amount required for local consumption, and are so remote from the populous centers and the central lines of railroad transportation as to be deprived of the advantages of the domestic markets. The low prices realized upon such exports when brought into competition with the better known grades of crude Cuban sugars in the European markets have not been such as to stimulate and encourage the traffic. The other costly and laborious alternative of transporting the heavy staple on mule-back across vast stretches of rugged and arid territory, in order to reach the central markets of the Republic, is hardly more inviting. Hence the anomalous situation is presented of sugar in some sections of the Republic being an article of essential and regular import, while in others it is a drug on the market.

In November last the sugar producers of Tabasco and Campeche convened for the purpose of endeavoring to remedy this unsatisfactory state of affairs. The exportation had heretofore been of a capricious and incidental character. They hoped to establish a permanent foreign market and to induce, by persistent and united effort, a more favorable appreciation of the Mexican product. The only

appreciable result of the conference was an appeal to Mr. Zapata Vera, the accomplished editor of the Mexican Economist, for all the practical advice and information on the subject that he could supply. The result of Mr. Vera's investigations induced him to recommend the Liverpool market in preference to that of New York, for the following reasons:

(1) England imposes no duty on crude sugar, while in the United States the tariff is $1\frac{1}{4}$ to $2\frac{1}{4}$ cents per pound, according to grade.

(2) Rates of freight between Progreso and Liverpool and New York are approximately the same; the rate either to New York or Liverpool being about \$11 per ton of 2,500 pounds.

(3) The transportation facilities from Progreso to Liverpool are more regular and frequent than those to New York.

In conclusion, he quotes the recent prices obtained for crude or Muscovado sugar as follows:

Liverpool, 10 to $10\frac{3}{4}$ shillings per cwt. (112 pounds); New York quotations, $4\frac{1}{8}$ to $4\frac{1}{4}$ cents per pound.

AMOUNT OF EXPORTATION.

The total valuation of sugar exported during the fiscal year ending June 30, 1886, amounted to \$208,775.53. The weights, values, and exportation, by ports, are shown in the following table:

The official weights and valuation of sugar exported by ports during the fiscal year of 1885-'86.

Ports.	Pounds.*	Valuation.	Ports.	Pounds.*	Valuation.
Vera Cruz	6,389,208	\$ 86,051.90	Camargo	5,733	\$268.00
Isla del Carmen	593,806	13,888.00	Presidio del Norte	1,849	11.00
Laredo de Tamaulipas	110,029	3,908.27	Sásabe	1,199	120.00
Piedras Negras	47,628	1,711.00	San Blas	1,654	40.00
Paso del Norte	9,702	326.00	Matamoros	264	10.00
Campecho	73,645	915.00	Cabo de San Lucas	385	8.00
Nogales	11,466	513.00	Mier	184	8.00
Progreso	18,301	500.00			
Tonalá	8,59	333.3	Total	1,273,122	208,775.53

* Reduced from kilograms to pounds in the Department.

The exports of piloncillo (crude concrete) is included in the foregoing table, viz: 1,026,260, valued at \$29,889.

The countries of export for the fiscal year of 1885-'86 are officially stated as follows:

Countries.	Sugar.	Pilon (crude).	Total value.
England	\$159,342	\$8,386	\$167,728
United States	19,421	13,087	32,510
Germany	32	8,375	8,407
Spain	66		6.
Colombia		40	40
France	25		25
Total	178,887	27,888	206,775

Sugar exportation in Mexico is not a progressive branch of commerce, and nothing within my view indicates that it will receive in the near future any considerable impetus. The tardy introduction

and diffusion of improved manufacturing machinery can only result, for some years, in furnishing an adequate supply of refined sugar for domestic consumption. When it is considered that domestic sugar, indifferently refined, finds a local market at prices ranging from 10 to 15 cents per pound, according to geographical location, no supplementary statement is needed to indicate that radical changes in the system of cultivation, manufacture, and modes of transportation must ensue before competition in foreign markets with the products of American and European refineries can be seriously inaugurated.

The present general remoteness of the places of production from the few lines of railroad transportation, and their inaccessibility to the ports of the Republic, precludes the conjecture that the production of the crude product will soon be largely augmented with a view to exportation.

The valuation of the exports, by years, from July 1, 1880, to June 30, 1885, as compared with the value of exports for the fiscal year of 1885 and 1886, is shown in the following table :

Exports of sugar for five years.

	1880-'81.	1881-'82.	1882-'83.	1883-'84.	1884-'85.	Total.	Average per year.
Sugar	\$317,977	\$266,075	\$198,365	\$177,260	\$34,271	\$931,068	\$198,781
Piloncillo	50,614	42,467	32,132	11,767	3,608	140,588	28,117
Total	368,551	308,542	230,497	189,027	37,879	1,134,491	226,898

WM. R. GREATHOUSE,
Consul.

UNITED STATES CONSULATE,
Tampico, September 12, 1887.

ACAPULCO.

REPORT OF CONSUL LOUGHERY.

Production.—The production of sugar in this district is small, and there is no way of ascertaining accurately how much is made. It is computed at 50,000 pounds; not sufficient for home consumption. Very ordinary brown sugar is sold at 10 cents per pound, and white sugar of inferior quality at 15 cents. There are no first-class sugars.

Local charges.—The local charges on the plantations are 2 per 1,000 on the value of the property.

Duties.—There are no export duties. Import duties on foreign sugars are 7½ cents per pound. There are no shipments of sugars.

Miscellaneous.—The lands in this district are rich and productive, but there is a deficiency of labor and enterprise.

Considerable sugar is raised in the district north of Acapulco, but of the quantity and quality I am not advised. I can only say that I have seen no good sugar on this coast, from the Arizona border to

Acapulco. Like everything else I have observed, the necessity, in this regard, of a liberal reciprocal treaty between the American and Mexican Governments is apparent.

R. M. LOUGHERY,
Consul.

UNITED STATES CONSULATE,
Acapulco, September 7, 1887.

GUAYMAS.

REPORT OF CONSUL WILLARD.

Production.—This consular district, which embraces the State of Sonora, cannot be called "a sugar-producing part of Mexico." A crude brown sugar (panocha) is produced to a limited extent, being manufactured in cakes of from 4 to 10 ounces each, but the amount manufactured is not sufficient for home consumption.

The sugar supply of Sonora comes principally from the States of Sinaloa and Jalisco to the south, and from the northern part of Lower California; also from the United States. That brought from Sinaloa and Jalisco is mostly refined white, while that from Lower California is crude brown (panocha). The sugar imported from the United States is refined white sugar.

To the north of Guaymas the sugar-cane does not grow to perfection, and no large sugar plantations have ever been established. Small quantities of sugar-cane are grown on the bottom lands of the small streams and rivers, and the amount of crude brown sugar (panocha) produced will approximate 1,500 cargass of 300 pounds each. To the south of Guaymas the climate and soil are more favorable and larger quantities of sugar-cane are grown and manufactured into panocha; the amount produced will not exceed 2,500 cargass of 300 pounds each.

This class of sugar is sold at the places of production at from 4 to 5 cents per pound.

In the bordering State of Sinaloa to the south, and the State of Jalisco, adjoining Sinaloa, sugar refineries or factories with improved machinery exist, from which Sonora is supplied with the greater portion of the refined sugar consumed in this State. The white refined sugar imported from foreign countries into Sonora is exclusively from the United States, and during the past year (1886) amounted to upwards of 218,000 pounds.

The bottom lands of the Taqui and Mayo valleys, south of Guaymas, in this consular district, are said to be well adapted to the growing of sugar-cane, but as that section of country has been in possession and controlled to a great extent by the Indian tribes of the same name, who for many years have been in a semi-rebellious condition, no sugar plantations have been established therein, owing to the lack of security to life and property. This condition of affairs has now ceased to exist, as the Indians are subjugated and under control of the Federal and State authorities.

It can now be expected that the cultivation of the sugar-cane and manufacture of sugar will be in the future an important industrial pursuit in that portion of Sonora.

Duties.—There are no duties levied on sugar exported from Mexico to foreign countries, and on this west coast sugar has never been classed as a staple article of export. The import duty on sugars from foreign countries (crude or refined) is 15 cents per kilogram, or $6\frac{1}{2}$ cents per pound.

Prices.—The prices at which sugars are selling at this port average during this year as follows:

	Cents.
Brown sugar (panocha) in cakes.....per pound..	7 to 8
Refined (Mexican) sugar.....do....	13 to 14
White (foreign) sugar.....do....	17 to 18

The above prices are in Mexican silver dollars, one dollar of which is equivalent to 80 cents American money.

A. WILLARD,
Consul.

UNITED STATES CONSULATE,
Guaymas, July 31, 1887.

LOWER CALIFORNIA.

REPORT OF CONSUL VIOSCA, OF LA PAZ.

Production.—The annual production of sugar in Lower California amounts to 2,400,000 pounds.

Charges.—There are no local territorial charges.

Duties.—By the taxation laws of "Portazgo" domestic sugar is taxed on its introduction at the places of consumption, or on its arrival at the port of shipment, at the rate of \$1 per 100 kilograms, net weight, equivalent to \$9.07 per Mexican ton of 2,000 pounds.

The import duties on foreign sugars are 15 cents per kilogram, gross weight, equal to \$142.94 per Mexican ton, including 5 per cent. for internal revenue.

Trade.—During the fiscal year of 1886-'87 about 30,000 pounds of beet sugar were imported from Germany, and 55,000 pounds of crushed sugar from the United States, notwithstanding the amount of country production, which is mostly turned into panocha and muscovado for home supply, and that of the principal markets of the Gulf-bordering States of Sinaloa and Sonora.

JAMES VIOSCA,
Consul.

UNITED STATES CONSULATE,
La Paz, Mexico, August 11, 1887.

PIEDRAS NEGRAS.

REPORT OF VICE-CONSUL MITCHELL.

Production.—The sugar product of this consulate district is of a low grade, called by the natives dulce or piloncillo. Barely enough is raised for home consumption. The amount exported is nominal.

Charges.—Charges or "taxes" differ in each municipality. The people have to pay taxes to both State and municipality.

Duties.—The import duty on foreign sugar is 15 cents a kilogram, or a fraction over 7 cents per pound. The extent of the sugar trade with countries of shipment is limited to imports from the United States, and this is confined to the cut-loaf. Such imports come in bond and cannot be reported of much magnitude. It is consumed by hotels and the wealthier class of people, and is gradually increasing in demand.

UNITED STATES CONSULATE,
Piedras Negras, August 3, 1887.

C. L. MITCHELL,
Vice-Consul.

SINALOA.

REPORT OF CONSUL KELTON, OF MAZATLAN.

Production.—Sugar-cane was but little cultivated in the State of Sinaloa until the year 1877. The soil, however, is well adapted for such plantations, but the want of capital kept the farmers from taking due advantage of their lands, and the small amount of sugar-cane which they cultivated was either sold to the natives, to be eaten in its natural state, or converted into brown sugar, called *panocha*. This sugar is made by a very primitive process, in small round or square cakes, darker than the brown sugar known in the United States.

The common and rather modest sugar-cane mill where the *panocha* is worked is called a *trapiche*. The *panocha* is packed in crates, which are named *cacastles*, and the weight of each of the *cacastles*, when packed, must be 150 pounds. Two *cacastles* make one *carga*, or 300 pounds, which is the usual load for a mule, by which merchandise is carried into the mountain towns.

All calculations, sales, and contracts are made taking the *carga*, or 300 pounds, as the basis. The poor class of people are the consumers of this *panocha*, or brown sugar.

Under the date of May 12, 1876, the government of this State published a decree by which a subsidy or premium of \$1 per 100 pounds of white sugar and \$2 per barrel of alcohol should be paid during five years to the first one who would establish a complete cane mill. Here begins the real production of sugar in this district, which was before supplied by the neighboring State of Jalisco, and by California and Europe.

The actual production consists, therefore, in white and brown sugar, and having explained the meaning of the word *carga* and its weight (300 pounds), this will be the basis for the following report of the production in this district by the factories in operation during the past year.

The Aurora mill, situated in Culiacan, the capital of this State, was established in 1877 by Senator Joaquin Redo, a resident of Mazatlan, who received the premium awarded him during five years, under the decree of May 12, 1876. The Culiacan River affording great facilities for irrigation, that point was selected for the plantation and the site of the mill.

The machinery was imported from the United States and from France. The centrifugals came from Germany. Four boilers with 300 horse-power run the mill. The annual production of this mill is about 1,834 *cargas*, or 550,000 pounds. The sugar is white, of good quality, and is packed in bales called *tercios*, which contain six cones of sugar, weighing each an *arroba*, or 25 pounds, and are sewed up

in a rough cotton cloth. Two of these tercios, or bales, make one carga, or 300 pounds, the load for a mule. The price during the year fluctuates between \$2 and \$3.50 per arroba (25 pounds), but we may take as the general price current, \$2.50, or 10 cents per pound.

The Constanica mill, at Fuerte City, was the second mill that was established in this State.

It is located on the bank of the Fuerte River, near the town of that name, in a small ranch called Mochicahui, and belongs to Mr. Francisco Orrantia y Sarmiento, one of the officials of that district. The machinery was imported from the United States and proved to be perfect, as the sugar manufactured is of the best quality. This mill has produced in one year 800,000 pounds of sugar, but its yearly average may be taken to be 624,000 pounds.

The price obtained for this sugar is the same as for the other mills, and the only difference to be noted in the manufacturing is that the sugar is packed in boxes of 150 pounds, and not in bales as at the other mills.

All the lands on the banks of the Fuerte River are particularly well adapted for the cultivation of sugar-cane.

There is a sugar mill, as yet unnamed, situated on the left bank of the Fuerte River, two miles from a small town named Ahome, not far from Topolobampo Bay, the property of Mr. Esteban Zakany, an American citizen. The machinery for this mill was imported from Germany. The mill was built in 1885, but did not commence to run until March, 1887, on account of the bad management, imperfections in putting up the machinery, and lack of the necessary capital. The mill can easily produce 7,500 pounds daily of excellent white sugar, but this year it has manufactured only 265,500 pounds. This sugar has been sold at 6 cents per pound.

No doubt the production of this mill next year will be about 750,000 pounds.

The production of white sugar in this consular district during the last fiscal year has been, as per above data :

MILL	Bales.	Weight.
Aurora	3,066	Pounds. 549,900
Constancia	4,166	624,900
No Name	1,760	264,000
Total	9,592	1,437,800

Brown sugar is produced in many places in this State by agriculturists who do not pretend to invest a large capital, and who find more profit in the sale of brown sugar than of white sugar, because the neighboring towns peopled by natives, purchase more of the former.

From the reports received from the different districts I estimate the product of brown sugar during the past fiscal year to have been in the several districts as follows, in cargass :

Fuerte, 4,000; Sinaloa, 1,160; Badiraguato, 350; Mocorito, 670; Culiacan, 600; Cosala, 500; San Ygnacio, 300, Mazatlan, 800; Concordia, 125; Rosario, 800; total 9,305 cargass, or 2,791,500 pounds.

The price of this brown sugar runs from \$12 to \$15 per carga, or 4 to 5 cents per pound; and it is noticed that the class of brown sugar manufactured in Fuerte, Sinaloa, Badiraguato, and Culiacan districts is of better grade than that produced in the other districts,

which are in the southern part of this State. It is harder and does not melt and crumble during the rainy season, as is the case with the products of the southern districts.

A considerable portion of the brown sugar manufactured in the northern districts is sent to the State of Sonora, where it is sold for better prices than are obtained in this State.

The production of panocha, or brown sugar, will certainly increase yearly, as it leaves a good profit, requires but little capital, and finds a ready sale.

Taxes, etc.—The sugar-cane plantations in this district have no special taxes to pay, but the owners of the lands, whether cultivated or not, have two taxes to pay, known as the State tax (*derechos del Estado*) and the municipal tax (*derechos municipales*). The State tax amounts to \$6 per thousand dollars on the value of the property, and this is appraised by a committee composed of officials and merchants, but the majority are the government officials. On the amount appraised is added at the time of collection 25 per cent. as federal tax. In fact, all taxes levied by State or city are increased by this 25 per cent. federal tax. The municipal tax amounts to \$3 on each thousand dollars valuation, taking as basis the State valuation, adding the inevitable 25 per cent. federal tax.

The sugar-cane mills pay their taxes in rather a complicated manner, and none pay the same amount; it depends on circumstances not easily explained. The mills mentioned pay more or less, as follows: A tax of \$120 per month while the mill is in operation, which averages about six months in the year, or \$720 per annum; a tax of \$2 for every bale of sugar (150 pounds), which is sold in the town where the mill is located.

To collect this tax the tax collector appoints a committee, who decide how many bales may be sold during the year as the consumption of the town. This tax is collected in monthly installments, of course adding the 25 per cent. federal tax.

The "trapiches" for the manufacture of brown sugar are in operation three or four months in the year, and pay, according to their importance, a monthly tax of, to the State, from \$3 to \$4; to the city, from \$1.50 to \$2, adding the inevitable 25 per cent. federal tax.

We have now seen the taxes levied on the plantations and on the mills. We will now examine the tax levied on the consumers.

All white sugar manufactured in Mexico, after leaving the mill, upon arrival at its destination pays the following internal duty:

To the State, on every 150 pounds, 75 cents; additional, 20 per cent., 15 cents; federal tax, 25 per cent, 22½ cents; total, \$1.12½.

To the city, on every 150 pounds, 75 cents; federal, 25 per cent., 18½ cents, 93½ cents; total on each bale, \$2.06½, equivalent to 1⅓ cents per pound.

Panocha or brown sugar pays in the same way:

To the State, on each 150 pounds, 25 cents; federal tax 25 per cent., 7½ cents; additional, 20 per cent., 05 cents.

To the city, on each 150 pounds, 25½ cents; federal, 25 per cent., 6½ cents; total tax on each 150 pounds, 69½ cents.

It must be noticed that any sugar arriving at a town and paying the above taxes, if it remains in that place a month, and not finding purchaser, is then sent to some other place. It will pay there the same tax again, and so on as many times as it may change destination.

Duties.—There is no export duty on sugar; it is free, but an invoice must be presented at the custom-house bearing a 50-cent internal-revenue stamp.

According to the last tariff all imported sugar pays a duty of 15 cents per kilogram, gross weight, and 2 per cent. in internal-revenue stamps.

Besides the above federal tax or duty, the State collects a duty also of 5 per cent. on the amount paid as federal duty, adding to that the inevitable 25 per cent. additional.

The import duty is, therefore, about 8 cents a pound.

Trade.—The sugar mills established in this State have not as yet supplied the home consumption; hence have not made any shipments of sugar abroad, and it is to be noted that the prices obtained here are higher than could be obtained in foreign markets. In point of fact, these mills do not supply the home consumption, and during the past fiscal year there has been received from the adjoining State of Jalisco some 1,500 pounds, and from the United States some 8,000 pounds.

The time, however, is probably not far distant when this State will not only produce sufficient sugar for its own consumption, but will be able to export a large quantity.

Conclusion.—This report has been delayed considerably on account of the great difficulties of obtaining reliable information; the manufacturers and agriculturists fearing that the products of their mills and plantations being known the Government will increase their taxes, as was the case in 1871, when the governor of the State requested the planters to report to him for statistical purposes the number of cane rows under cultivation, and a month later a new tax was imposed on sugar-cane plantations, called the "ley de surcos," or "row law," which obliged many poor laborers to abandon their fields.

EDWARD G. KELTON,

UNITED STATES CONSULATE,

Consul.

Mazatlan, September 30, 1887.

TAMAULIPAS AND SAN LUIS POTOSI.*

REPORT OF CONSUL GREATHOUSE, OF TAMPICO.

Production.—In the States of Tamaulipas and San Luis Potosi no accurate official data is obtainable respecting the annual production of sugar. The production in the State of San Luis Potosi of crude brown sugar (pilon) for the year of 1886-'87 aggregates 6,000 tons, and the yield of white sugar, 2,500 pounds; equal to approximate valuation of \$185,000. The production of Tamaulipas during the same period aggregated 9,000 tons of crude and 50,000 pounds of white sugar, with a total approximate valuation of \$275,000, thus making the aggregate production of both States 30,075,000 pounds, with a valuation of \$460,000.

Taxes.—In Tamaulipas and San Luis Potosi agricultural lands are very irregularly appraised. It is considered, however, that the general appraisement of such lands is considerably below their actual value. On the appraised valuation the taxes for all purposes, State and Federal, aggregate approximately \$1.75 per hundred dollars.

Duties.—Sugar is not subject to State or Federal export duty. Common or refined sugar of all classes is subject to an import duty of 15 cents per kilogram, gross weight, or approximately 6½ cents per pound avoirdupois.

Trade.—The only exports from Tamaulipas are through the frontier ports of Laredo de Tamaulipas, Mier, Camargo and Matamoros.

* A report on the sugar industry for all Mexico, from Consul Greathouse, will be found in this number also.

The total exportation from these ports during the year ending June 30, 1886, and consigned to the United States, aggregates 116,255 pounds, with a valuation of \$3,654.27. At Tampico sugar is not an article of export.

Cultivation.—Considering that the States of Tamaulipas and San Luis Potosi together embrace an area of 55,377 square miles of territory, a considerable part of which is adapted to the growth of sugar-cane, and that the total value of their sugar production aggregates approximately only \$460,000, it is clearly apparent that the cultivation and production of sugar is in its infancy. In fact, noting a few exceptions, sugar-cane is cultivated merely as an incidental crop; that is, no large tracts of land, as in Louisiana and Cuba, are devoted exclusively to its culture. In many sections of the State of Tamaulipas, notably in the southwestern part of the State, and especially on the alluvial lands bordering the Panuco and Tamesi Rivers, sugar-cane seems almost indigenous. In Louisiana, as is known, the plant under the stimulus of industrious and scientific cultivation fails to maintain a vigorous growth longer than three years from the period of original planting. Here in most instances seed planting is renewed in every seven or eight years, but on some haciendas I have seen cane of vigorous growth spring from stubble twelve years old. The most primitive methods of cultivation are employed. The forked stick with an iron prod on the end, such as the Egyptians employed two thousand years ago, is the implement used in plowing. The seed-cane once planted, aside from the annual spring plowing the plant receives little further attention until it has reached maturity and is ready for grinding. The system employed in manufacturing the saccharine into sugar is entirely divested of the costly and scientific apparatus that is deemed essential to its proper manufacture in other countries.

Mode of manufacture.—The cane is ground between rude wooden rollers, turned by horse-power, and not more than 55 per cent. of the saccharine matter is extracted from the stalk. With improved machinery and heavy rollers this percentage could be increased to about 85. The juice undergoes no purifying process, but is simply strained, and then boiled in kettles to a point far beyond that required for granulation, until a solid mass is obtained, leaving no residue of molasses. This crude product is known in the phraseology of the country as "pilon" and has a domestic value of $1\frac{1}{4}$ to 2 cents per pound, and is consumed by the mass of Mexicans. Until recently no facilities existed for refining this product, and white or refined sugars are imported from the States of Morelos, Mexico, Puebla, and Vera Cruz. In this district, as in all the sugar-producing regions of Mexico, "pilon" is largely used in the distillation of "Aguardiente de Caña," a colorless ardent spirit that is much affected by the natives and forms the basis of adulteration of the inferior grades of wines and liquors.

Improvements.—In concluding this report I desire to call attention to improvements recently inaugurated by an accomplished and progressive Mexican citizen, Señor Don José M. Rascon, who, being technically and theoretically familiar with the planting and manufacturing system in vogue in Louisiana and Cuba, has determined to apply that system to his hacienda in San Luis Potosi. He has recently set up, at a cost of \$250,000, a centrifugal sugar mill, and, with a thousand acres highly cultivated in cane, proposes to grow and manufact-

ure into refined sugar on an extensive scale. The experiment of Mr. Rascon will be watched with interest, and if successful will doubtless find many imitators.

WM. R. GREATHOUSE,
Consul.

UNITED STATES CONSULATE,
Tampico, September 12, 1887.

VERA CRUZ.

REPORT OF CONSUL HOFF.

Production and taxes.—There is not enough of sugar raised in the southern part of the State of Vera Cruz to supply the home consumption, and what is made is made in a very crude way; but in the center of the State, around Orizaba, Cordoba, and Jalapa, there is considerable raised. Gentlemen of the best information think there are about 6,000 acres under cane cultivation, which pays to the State of Vera Cruz a tax of \$1.46 per acre. Each acre of cane is supposed to make one ton of sugar and about 200 gallons of aguardiente.

Duties.—There are no export duties. Import duties are 15 cents per kilogram, gross weight.

Trade.—The trade with foreign countries for the fiscal year ending June 30, 1887, was as follows:

	Kilograms.
England.....	1,915,765
United States.....	31,681
Spain.....	10,452
France.....	399
Germany.....	210
Total.....	1,958,507

JOSEPH D. HOFF,
Consul.

UNITED STATES CONSULATE,
Vera Cruz, September 21, 1887.

YUCATAN AND CAMPEACHY.

REPORT OF CONSUL GILKEY, OF MERIDA.

Production.—Sugar-cane cultivation is carried on in the northern part of Campeachy and southern and eastern part of Yucatan under great difficulties, being situated all along the boundary lines between the territory occupied by the revolted Indians of Chan Santa-cruz, and subject or exposed to their incursions at all times.

The number of sugar cane plantations, or "ranchos," is estimated at about three hundred. The absence of any regularly established bureau of statistics makes it exceedingly difficult to arrive at any but an approximate calculation of the number of plantations in this State and Campeachy.

The amount of land under sugar-cane cultivation is estimated at about 80,201 "mecates," or 8,120 acres.

Cane cutting and sugar making commence in the months of December and January, and end in the months of May and June, the production of sugar varying, of course, with the amount of rain-fall.

The amount of sugar produced is estimated at 1,500 pounds per acre, or 4,125 tons for the entire district, all of which is consumed in Yucatan and Campeachy.

Machinery.—There are 282 plants of machinery in Yucatan, and about 60 in Campeachy, of which 306 are of American and 36 of English make. An apparatus for making refined or cut-loaf (cubes) sugar has just been introduced by the Messrs. Duarte, of this place. Their object is to produce enough refined sugar to avoid the necessity of importing any sugar.

Duty and taxes.—The demand for the common grades of sugar being supplied by the production, none but refined or cut-loaf sugar is imported, on which there is a Federal tax of $7\frac{1}{2}$ cents per pound, a State tax of 25 per cent. ad valorem, and a municipal tax of $12\frac{1}{2}$ cents per 100 pounds. The amount of this sugar imported is from 30,000 to 40,000 pounds; the United States being the only country from which it is imported.

By a special decree of the legislature all sugar plantations are exempted from the payment of taxes. It is claimed that the perils to which planters are exposed on account of the proximity to the Indian frontier are fully offset by the advantages gained by this exemption.

JOHN M. GILKEY,
Vice and Deputy Consul.

UNITED STATES CONSULATE,
Merida, September 9, 1887.

CENTRAL AMERICA.

COSTA RICA.

REPORT OF CONSUL WINGFIELD, OF SAN JOSÉ.

Production.—Sugar-cane has been grown in Costa Rica for a number of years, but it is only within the last ten years that attention has been turned to the manufacture of a better class of sugar. There are now about eight plants where the Jamaica train and centrifugal processes are used.

All sections of the Republic are well adapted to the growth of sugar-cane. The varieties grown are the "Cuban," the "Yellow Cane," and the "Striped;" the latter being used mainly for feeding stock. Plantations are made at very small cost by laying cuttings of cane, each about 2 feet long, in trenches and covering from 6 to 12 inches, the latter depth being considered best. After shoots show up, one working is given to clear the grass; no further working is needed. The first cutting is made within eighteen months, and the plantation, with proper care, lasts at least fifteen years without renewing. Of the sugars made the large clear crystal is worth 7 cents per pound, and the light brown about 4 cents. The residue, molasses, etc., is boiled down, molded into large cakes, and used for making rum. Much the largest product, however, is in the shape of "dulce"—a crude sugar, dark brown, in cakes of from 2 to 4 pounds, made by small farmers in

wooden roller mills and open kettles. This "dulce," sold at from 3 to 5 cents per pound, is used by the masses of the people both in town and country, and is also largely used in the manufacture of rum.

The latest statistics for the year 1884 show that at that time there were about 12,000 acres of land planted in cane and the products were 896,300 pounds of sugar and 16,149,400 pounds of dulce.

The following table shows the production by provinces :

Provinces.	Elevation.	Population.	Acres.	Sugar.	Dulce.
	<i>Feet.</i>			<i>Pounds.</i>	<i>Pounds.</i>
San José.....	3,600	58,246	3,900	1 0,000	5,476,300
Alajuela.....	2,800	46,785	5,030	750,000	7,267,700
Cartago.....	5,000	31,152	1,200		879,100
Heredia.....	3,200	6,472	1,000	15,400	1,947,400
Guanacaste.....	Pacific coast..	15,403	700	900	847,000
Puntas Arenas.....	do.....	7,898	170		226,900
Limon.....	Atlantic coast.	1,572	(*)		
Totals.....		187,888	12,000	896,300	16,153,400

* None. Recently settled.

It is estimated that the population increases $2\frac{1}{2}$ per cent. annually, and is now computed at something more than 200,000 besides the Indians of Talamanca and Guatuso. It is safe to say that the sugar industry is being developed each year with a greater ratio of increase than that of population. The Government purchases annually for the manufacture of rum (aguardiente), of which it holds the monopoly, about 3,000,000 pounds of dulce and the second product made at the mills after extracting the first and second classes of sugar. A great deal of cane is fed to horses, hogs, and cattle, so that no inference can be drawn from the figures given above of the actual yielding capacity of a sugar plantation. I am told, however, that it is not uncommon to obtain 100 quintals from an acre, of which 50 quintals (5,000 lbs.) would be sugar and 50 quintals, the second product, for rum.

Taxes.—It is the policy of the Government of Costa Rica to develop sugar production. There is no land tax, and no local charge or tax of any kind on the plantation or the products or "plant" for manufacture, and up to this time those who wished to import machinery for the manufacture of sugar have without difficulty obtained a special concession, by which they could do so free of duty.

Duties.—There are no export duties on sugar. None is exported, however, as all that is made is needed for home consumption. Nor is it probable that sugar will be made for export for a number of years in Costa Rica; not, in fact, until there is direct railroad communication with the sea-ports, and the population of the country is largely increased. The import duties on foreign sugars are: *Refined*, $3\frac{1}{2}$ cents (American) per pound on the gross weight; *unrefined*, equivalent to 2 1-5 cents per pound gross weight.

Trade.—There is annually imported about 290,000 pounds of sugar, mostly refined, as there is no sugar refinery in the country. The United States sends 160,000 pounds; England, 55,000 pounds; the Central American States, 60,000; and France and Germany together, 15,000.

J. RICH'D WINGFIELD,
Consul.

UNITED STATES CONSULATE.
San José, September 27, 1887.

GUATEMALA.

REPORT OF CONSUL-GENERAL HOSMER.

Production.—The production of sugar, of white and inferior qualities, in the Republic of Guatemala, during the years 1880–1886 and the first six months of 1887 was as follows:

[The quantities in this table were reduced from kilograms to pounds in the Department.]

Years.	White.	Muscovado.	Total.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1880.....	3,209,598	753,448	3,963,046
1881.....	2,784,222	889,008	3,673,230
1882.....	3,364,640	894,568	4,259,208
1883.....	4,599,850	1,045,400	5,645,250
1884.....	4,165,435	1,250,455	5,415,890
1885.....	4,101,520	8,142,624	12,244,144
1886.....	5,291,559	16,379,181	21,670,740
1887 (six months).....	3,648,780	3,368,799	7,017,579

Taxes.—The local charges on plantations (taxes, etc.) are \$3 annually upon each \$1,000 worth of product declared by the proprietors.

Duties.—There are no duties charged upon the export of sugars. The import duties on foreign sugars are as follows: Refined sugars, per quintal, gross weight, appraised at \$12; duty, 70 per cent., \$8.40. Inferior classes, gross weight per quintal, appraised value, \$8; duty, \$5.60.

Extent of sugar trade, with countries of shipment.

Years.	Gross weight.	Value on shipboard.
	<i>Pounds.</i>	
1880.....	410,651	\$41,065.10
1881.....	15,806	1,580.80
1882.....	1,374,751	82,486.06
1883.....	4,462,727	223,136.03
1884.....	3,796,635	151,827.80
1885.....	6,342,982	317,149.10
1886.....	7,051,110	352,555.50

JAMES R. HOSMER,
Consul-General.

UNITED STATES CONSULATE,
Guatemala, August 25, 1887.

HONDURAS.

REPORT OF VICE-CONSUL BERNHARD, OF TEGUCIGALPA.

Production.—The production of sugar in Honduras is very reduced. There is no exportation at all; on the contrary, white granulated sugar, called “muscovado,” is imported from the neighboring Republics of Salvador and Nicaragua.

Charges.—There are no local charges on plantations.

Duties.—No import duty is paid for sugar made in Central America, but for sugar from other countries, white or brown, the duty is 3 cents per pound. There is no duty on sugar exported.

Trade.—The quantity imported from Salvador and Nicaragua is about 200,000 pounds per annum. The majority of the natives use country-made sugar in small blocks, weighing about a pound and a half, of good grain, but wanting in refining. It is impossible to calculate the quantity produced, as no returns of cane culture are available, and many sugar-cane farms in contract with the Government produce only rum, raw and unwholesome, which must all be delivered to the Government at the price of 6½ cents a quart. The Government retails it to the people at a very large profit.

GEO. BERNHARD,
Vice-Consul.

UNITED STATES CONSULATE,
Tegucigalpa, September 10, 1887.

RUATAN AND TRUXILLO.

REPORT OF CONSUL BURCHARD.

Production.—The amount of sugar produced in this consular district is not sufficient to satisfy the local consumption, and importations are made from the United States and from British Honduras to supply the deficiency. Sugar-cane grows here to perfection, and yields large crops for many consecutive years without replanting. Specimens of Honduras cane are often carried to foreign countries and exhibited as curiosities, on account of their large size and saccharine richness. Mr. Gustave Coindet, a Swiss gentleman, has the only cane plantation in this island worthy of mention. He produces sugar of excellent quality, which is in constant demand for home consumption at from 8 to 10 cents per pound.

The want of reliable labor offers a serious drawback to the development in this district, not only of sugar industries, but of coffee, rice, and other tropical productions, for which the soil and climate are admirably adapted.

Charges.—There are no direct local charges on plantations. The only direct taxation is for the support of the public schools, roads, etc.

Duties.—There is no export duty on sugar. The import duty amounts to about 3 cents per pound.

WM. C. BURCHARD,
Consul.

UNITED STATES CONSULATE,
Ruatan and Truxillo, August 30, 1887.

NICARAGUA.

MANAGUA.

REPORT OF CONSUL WILLS.

Products.—The production of sugar in this consulate district is estimated at 1,000 tons, mostly consumed in the country.

Taxes.—There are no local charges or taxes of any kind.

Duties.—There are no export duties. Import duties on foreign sugars, 4 cents per pound, currency of the country, Peruvian sol, value, 72.7 cents, American gold.

Extent of sugar trade, with countries of shipment.

[From the report of the minister of finance.]

Countries.	1885.		1886.	
	Quantities.	Values.	Quantities.	Values.
	<i>Quintals.</i>		<i>Quintals.</i>	
California.....	428.81	\$3,380.48		
Colombia.....	1,678.49	11,611.92	223.20	\$7,385.60
Central America.....	280.00	1,160.00	13.88	107.04
North America.....	500.00	2,500.00		

The refuse from the production of the sugar is distilled into *aguardiente* (rum), by contract with the Government, at 35 cents per gallon, and is a monopoly. The amount paid by the Government for such rum was \$116,716 for 1885 and \$114,721 for 1886.

CHARLES H. WILLS,
Consul.

UNITED STATES CONSULATE,
Managua, Nicaragua, August 8, 1887.

SALVADOR.

REPORT OF CONSUL DU PRÉ, OF SAN SALVADOR.

Production.—The annual production of sugar in Salvador is about 18,000,000 pounds. Of this amount 10,000,000 pounds are exported, two-thirds of which go to the United States and the balance to Europe, to England chiefly.

Taxes.—There are no local taxes. On the contrary, the Government pays a bounty of 50 cents per quintal of 100 pounds on exported sugar. This bounty is paid with orders on the treasury, now worth, perhaps, 25 cents on the dollar.

Duties.—There are no export duties. There is an import duty of 10 cents per quintal, but no sugar is imported.

Crude sugar, "mascobado," is retailed in market at $1\frac{1}{2}$ cents, and clarified at $1\frac{1}{2}$ and $1\frac{3}{4}$ cents per pound.

The cost of shipping sugar is as follows, per quintal: Mascobado 8 cents and white sugar 12 cents; wharfage, cartage, 3 cents; shipping, 20 cents, and sacks 3 cents; in all, from 60 to 75 cents.

L. J. DU PRÉ,
Consul.

UNITED STATES CONSULATE,
San Salvador, September 10, 1887.

SOUTH AMERICA.

BRAZIL.

REPORT OF MINISTER JARVIS.

Production.—Brazil may be divided, industrially, into three divisions: The rubber-producing district, the sugar-producing district, and the coffee-producing district. These three divisions cover the whole eastern slope of the Empire, from its northern to its southern limits; each one being distinguished by its leading product, and very largely dependent upon it for its prosperity. Of course each has its smaller productions and industries which, in the aggregate, are of much importance, but none of these begin to approach the leading industry of the district to which it belongs.

The first or rubber-producing district embraces the valley of the Amazon and its tributaries, and extends along the coast from the western boundary of the Empire as far south as the vicinity of Maranham.

The second or sugar-producing district extends from Maranham southward to the vicinity of Rio de Janeiro, a distance of nearly 1,800 miles. It is to this district and its leading industry, sugar, that I wish to call attention.

This district embraces eight provinces (answering to States with us), namely: Bahia, Sergipe, Pernambuco, Alagoas, Parahyba, Rio Grande do Norte, Ceará, and Maranham.

The aggregate population of these provinces exceeds 5,500,000. The district contains many cities, Bahia and Pernambuco being among the number. Soil and climate conspire to make it one of the finest sugar-producing countries in the world. Stimulated by paying prices and ready markets, the production would be very great, almost beyond easy estimation. But of late years, I am informed, the production has been greatly diminished and almost profitless. Several causes have combined to bring about this result. Among them may be mentioned the large production of beet sugar, the high tariffs demanded in many of the sugar-consuming countries, and the Brazilian export tax. How far any one of these causes, or all of them combined, or even others, have affected the industry I need not estimate, as my purpose will be served by a simple statement of its condition.

However much men may differ in their speculations as to the cause of the unprofitable condition of the industry, they will all concur in the statement that its condition is bad, and that it is seriously affecting the general prosperity of the country. The Imperial Government, attaching great importance to this industry, has from time to time, in its efforts to sustain and improve it, granted subsidies to companies establishing factories with improved machinery and methods for manufacture; but so sharp has been the competition in other sugar-producing countries that, in spite of this Government aid, the industry is on the decline. Such is the unprofitable condition of the industry that many of the thoughtful and leading citizens of the district are occupying their time in studies and efforts for its improvement.

This district furnishes the national legislature and the National Government with the leaders in public affairs, so that it exercises a large influence in the councils of the nation.

One method proposed to be resorted to for the improvement of the industry, as I am informed, is the abolition of the export tax. Another, as I am also informed, is an effort to introduce Brazilian sugar into the United States, free of import duties, by granting similar exemptions to some of the peculiar productions of our country.

I beg to call attention to the accompanying report from Mr. Santos.

Mr. Santos was a student at Yale College, and spent several years in the United States. He is well and favorably known here, and his report will give an idea not only of the sugar industry, but also of the trade, traffic, and commerce of the provinces, including importations of foreign goods and the means of transporting them into the interior.

THOMAS J. JARVIS,
Minister.

UNITED STATES CONSULATE,
Rio de Janeiro, September 20, 1887.

SUGAR-PRODUCING PROVINCES OF BRAZIL.

[Report of Mr. Santos to Minister Jarvis.]

I have the honor to submit to your excellency the following *descriptive sketch* of the principal sugar-producing provinces of Brazil:

PROVINCE OF BAHIA.

Description.—The population of the province of Bahia is estimated at 1,800,000. The capital, St. Salvador, situated in latitude 18° 0' 37" west of Paris, contains a population estimated at 180,000. Its harbor has a safe anchorage for vessels of any size and tonnage, and can be reached at any time of the day or night.

Sugar production.—The leading article of export of Bahia is sugar. The production and export of this commodity exceed all other industries, but the extensive development of its manufacture by improved processes in Europe, and the consequent low price of the article, have exerted such influence upon growers by competition that the culture of the sugar-cane has been much neglected of late years, and although the soil is well adapted to this culture the production has visibly declined.

In the fiscal year 1885-'86 there was exported through the port of St. Salvador 35,000 tons of raw sugar against 74,000 tons in the fiscal year 1883-'84, when the crop was more abundant and prices higher.

The soil of this province is very rich, and the producing capacity of sugar can be developed to an enormous extent if prices and capital would assist.

Bahia possesses many sugar factories (*engenhos*) of old and primitive character. Concessions have been granted by the Brazilian Government for the erection of several central sugar factories, using improved machinery, and for which subsidies were given varying from 6 to 8 per cent.

The sugar produced by the vacuum system is of a crystallized form, and is mostly consumed in the country. The raw sugar, which has a strong grain and constitutes the export, is packed in bags of 60 kilos each (132 pounds) and thus shipped to foreign ports.

Bahia, like other sugar-producing provinces, is laboring under great difficulties, owing to the depression of the market generally in spite of the Government decreeing the exemption of export duties.

Railways.—The facility for reaching every part of the interior is all that can be desired in the province of Bahia, owing to its 800 miles of railroads, of which upwards of 587 miles are in actual traffic and the balance are in construction. These roads are as follows:

Bahia and San Francisco (gauge 5 feet 3 inches). The main line with the above gauge has 76½ miles in traffic. The *ramal* of Timbó and the prolongation of the

main line, with a 3 feet 3½ inch gauge, will have 282.5 miles, and to reach the river San Francisco, the terminus of the road, 82 miles more will be constructed.

Bahia Central (gauge 3 feet 6 inches), with 187½ miles, of which 179 are in actual traffic.

Nazareth Railway (gauge 3 feet 3½ inches) has 23 miles in traffic.

St. Amaro River Railway (gauge 3 feet 3½ inches) has 22 miles in traffic.

Bahia and Minas (gauge 3 feet 3½ inches), to the limit of the province of Bahia; has 88½ miles in traffic.

Navigation.—The province of Bahia has several navigable rivers which afford great facility for transportation; the climate, especially that of the interior (Sertão), is good, and with an increase of population the commerce would develop into one of great importance.

During the fiscal year of 1885-'86, 485 steamers and sailing vessels, measuring 558,083 tons, entered the port of St. Salvador from foreign countries, whilst 295 Brazilian vessels, measuring 196,300 tons, and 148 foreign vessels, measuring 151,939 tons, entered from other provinces of the Empire.

Imports and exports.—The total imports of foreign goods through the port of St. Salvador during the fiscal year 1885-'86 amounted to \$10,470,758.50 (exchange at 50 cents per milreis), and the exports to \$7,574,828. The total export to other provinces of the Empire during the same period amounted to \$2,900,350, and the imports to \$1,838,450.

Trade with the United States.—No official report can be produced as to the importation from the United States into Bahia during 1885-'86. We must therefore refer to the report of merchandise as classified in the tariff of the customs for the fiscal year 1883-'84, which amounted to \$837,301.68. Exchange 50 cents per milreis.

The trade with the United States is on the increase. Many manufactured articles are being introduced into the country, besides flour, lard, kerosene, naval stores, pine, domestic machinery, agricultural implements, locomotives, etc.

The railways of the country employ exclusively American locomotives, and the cars imported serve as models for those manufactured in the country.

Such are the favorable conditions of this important sugar-producing province, to which is destined a great future if a wise policy, based on the free exchange of products with other nations, especially with the United States, be resorted to in order to save it from years of prostration.

Confiding in the patriotic efforts of their legislators, the people of Bahia are anxiously awaiting when a step in this direction be realized, which would be the best factor of the future progress of their province.

PROVINCE OF SERGIPE.

Description.—The population of the province of Sergipe is estimated at 250,000. Aracaju, its capital and sea-port, has a population estimated at 9,500.

Sugar production.—The principal and almost the only industry of the province is sugar, of which some 20,000 tons were exported during the fiscal year 1885-'86, mostly to other provinces of the Empire.

Navigation.—The direct navigation to foreign ports has been very limited. During the year 1885-'86 only 26 vessels, measuring 7,886 tons, sailed from the port of Aracaju to foreign ports, whilst 277 national steamers and sailing vessels, measuring 82,704 tons, sailed to other ports of the Empire.

Imports and exports.—The imports from foreign ports during the fiscal year 1885-'86 amounted to \$63,752, while the exports for the same period amounted to \$745,404.

The imports from other provinces during the period above mentioned amounted to \$2,440,850, and the exports to \$431,000.

Slavery.—The province of Sergipe is fast emancipating the slaves. The people are industrious, and the climate is the same as that of Bahia.

Railways.—There is a concession given by the central government, with a subsidy of 6 per cent., for the construction of a railroad, which, starting from the capital (Aracaju), terminates at the rich district of Simão Dias, 118 miles.

PROVINCE OF PERNAMBUCO.

Description.—The province of Pernambuco contains a population estimated at 1,100,000. Its capital and principal sea-port is situated in latitude 8° 3' 27" south, and longitude 37° 10' 20" west of Paris, and contains a population estimated at 165,000 inhabitants.

Sugar export.—Sugar is the leading export of this province, the exports during the fiscal year 1885-'86 amounting to 93,545 tons, 71,037 tons less than in the year 1880-'81, when the exports reached 164,582 tons.

Sugar production.—The soil of the province of Pernambuco is immensely rich and is especially adapted to the culture of sugar-cane. Its sugar-producing capacity would be almost limitless if capital and remunerative price concurred in the development of this industry.

In this province there existed at one time 3,000 sugar factories of the primitive character, but producing a sugar rich and of strong grain.

Several modern sugar factories, subsidized by the Government, have been established, but the different sugar produced by the processes employed in these factories is almost all consumed at home.

At present the low prices paid to planters for the raw material has greatly discouraged them, and in consequence the culture has been much neglected, and in many instances they have allowed the cane to rot in the fields rather than carry it to the factories to be made into sugar, stating that it would not pay expenses.

Government aid.—The Government is doing everything to assist the sugar industry, having taken as a preliminary step, to decree the exemption of export duties and causing the Government roads and private companies to reduce to a minimum the freight and all expenses on sugar.

Now in order to save this most important branch of agricultural industry and secure the future prosperity of the northern provinces engaged in the production of sugar, other and more important measures must be resorted to.

Railways.—Pernambuco is endowed with three lines of railways, viz :

Recife and San Francisco Railroad (gauge 5 feet 8 inches), with 77 miles in the main line and 90 miles extension to Garanhuns, with 3 feet 3½ inches gauge, all of which is soon to be opened to traffic.

Recife a Caruaru (gauge 3 feet 3½ inches), with a total length of 85 miles.

Recife and Limoeiro (Great Western Railway), with 88 miles.

Trade at the port of Pernambuco.—The port of Pernambuco now admits ships of 20 feet draught, and in a short time, when the elaborate project presented to the minister of agriculture will be carried into execution, Pernambuco will have a good and sure anchorage for vessels of any size and tonnage.

During the fiscal year 1885-'86 the number of foreign steamers and sailing vessels which entered the port was 573, measuring 462,535 tons, whilst 1,109 Brazilian steamers, and sailing vessels and a number of small craft (barcaças) measuring 226,668 tons, and 258 foreign vessels, of every description, measuring 126,090 tons, brought merchandise from the other provinces of the Empire or came to load sugar.

The total imports of foreign goods through the port of Pernambuco for the fiscal year 1885-'86 amounted to \$10,347,130 (exchange 50 cents per milreis), while the export amounted to \$7,574,828.

The total imports from other provinces during the same period (1885-'86) amounted to \$2,313,250, and the exports to \$3,898,300.

Trade with the United States.—The imports from the United States, for want of official data, cannot be given in this sketch. Those imports are made up of flour, lard, kerosene, naval stores, pine, domestics, machinery, locomotives, manufactured articles, etc.

The trade with the United States is daily assuming greater importance, and with a more constant steam communication and a free exchange of products, especially with the United States, our natural friend and principal consumer, a great expansion would result in the reciprocal commercial interest of both countries.

PROVINCE OF ALAGOAS.

Description.—Situated south of Pernambuco, the province of Alagoas contains a population estimated at 475,000. Its capital, Maceio, is in latitude 9° 39' 30" south, and longitude 38° 5' west from Paris; contains a population estimated at 18,000.

Sugar production.—The principal industry of the province is sugar of excellent quality, owing to its strong grain. The soil is exceedingly rich, and the sugar-cane once planted produces several crops without replanting. Almost every inch of the soil of this province is adapted to the culture of sugar-cane, and it is not an exaggeration to say that with compensating price and other privileges the Province of Alagoas could produce hundreds of thousands of tons of sugar per year, even with its limited population.

Port of Maceio.—The port of Maceio is of sufficient depth for vessels of any size and tonnage. The number of foreign vessels sailed from the port of Maceio during the fiscal year of 1885-'86 was 60, measuring 45,466 tons, whilst 391 Brazilian steamers and sailing vessels, measuring 223,633 tons, and 4 foreign steamers, measuring 1,751 tons, sailed during the same period to other ports of the Empire.

Trade of Alagoas.—The total exports from Alagoas to foreign ports during the period of 1885-'86 amounted to \$1,187,881, and the imports to \$944,211.

The exports to other provinces of the Empire during same period amounted to \$452,350, and the imports therefrom to \$1,237,400.

This province subsidizes with \$12,000 yearly the Royal Mail steamer which makes one trip every month to and from Europe.

During the first six months of the present year (1887) there were exported through the port of Maceio to Europe and River Plate nearly 24,000 tons of raw sugar.

Railways.—The province of Alagoas possesses two lines of railroad, viz:

The Paulo Affonso (gauge 3 feet 3½ inches), with 72½ miles, from the port of Piranhao (south of Maceio) to Jalota, in the province of Pernambuco.

The Central Alagoas Railway (gauge 3 feet 3½ inches) starting from the port of Jaraguá, near Maceio, to the Villa da Imperatriz, 54½ miles westward of the province.

PROVINCE OF PARAHYBA.

Population, etc.—Population estimated at 489,000. Its sea-port, Parahyba, is situated in latitude 6° 57' 30" south, and longitude 37° 10' west of Paris; contains a population estimated at 16,000.

Sugar production.—Sugar is the principal industry of this province, the exports during 1885-'86 amounting to 15,000 tons of sugar.

The raw sugar, produced by the primitive process, is rich in grain and is exported to foreign countries through the port of Pernambuco.

No statistics have been made since the fiscal year 1884-'85 as regards the movement of the port [Parahyba?], which was, in that year, 34 foreign vessels, measuring 13,455 tons, and 190 national vessels, measuring 16,446 tons, sailing to other ports of the Empire.

Low price of sugar in the foreign markets has considerably diminished the culture of sugar-cane. The port of Parahyba lies a considerable distance from the sea, and the great expenses incurred by large vessels in reaching it have caused the total absence of these vessels. Until the port of Cabedello is improved and the railroad facilitates cheap transportation of goods to the principal center of commerce, Parahyba will be kept in arrears of other provinces.

Notwithstanding these impediments, there was exported by small crafts from the port of Parahyba to Pernambuco, there to be shipped to foreign and national ports, the amount of \$996,487.

The province has a line of railroad, which starts from the port of Cabedello, at the entrance of the Parahyba River, and terminates at Mulungú, in the interior of the province, with 43½ miles, and from that village two branches, with 28½ miles, run east and west.

PROVINCE OF RIO GRANDE DO NORTE.

Population, etc.—Population estimated at 320,000. Natal, the capital of the province, is situated in latitude 5° 46' 40" south, and longitude 37° 32' 20" west of Paris, and has a population of 16,000 inhabitants.

Sugar exports.—Sugar is largely manufactured in this province. No reliable statistics can be obtained as to the exports from the port of Natal for 1885-'86. The commercial association of Natal puts down the exports during 1885-'86 at 12,500 tons.

Navigation.—During the fiscal year 1885-'86, 31 foreign vessels, measuring 10,114 tons, sailed from the port of Natal for foreign ports, whilst 211 national steamers and sailing vessels, measuring 24,338 tons, and 4 foreign vessels, measuring 1,703 tons, sailed to other ports of the Empire.

Imports and exports.—The imports from foreign countries into Rio Grande do Norte for the fiscal year 1885-'86 amounted to \$88,506, and the exports to \$810,552, whilst the inter-provincial commerce for the same year was: Exports, \$107,750; imports, \$1,145,000.

Railways.—Natal and Nova Cruz (gauge 3 feet 3½ inches), running from the capital, with 75½ miles in traffic and 26½ in construction, starting from Ceará Merim, a rich sugar district, where a number of factories exist.

Soil, etc.—The soil of Rio Grande do Norte is rich, and the culture of sugar-cane and the manufacture of sugar can obtain a great development.

PROVINCE OF CEARÁ.

Population.—The population of the province of Ceará is estimated at 800,000. The capital, Fortaleza, is situated in latitude 2° 30' south, and longitude 46° 37' west of Paris, and contains a population estimated at 25,000.

Sugar production.—Sugar is an important industry of this province, but its culture has considerably declined of late, owing to the depression of the sugar market generally.

The people are exceedingly industrious, and a great quantity of sugar can be produced in the province provided the price would compensate. As it is, Ceará

exports an immense quantity of sugar to Pará, where the growing of the cane is completely neglected for the more remunerative one of india-rubber.

The emancipation of the slaves first took place in this province.

Imports and exports.—The exports of Ceará to foreign ports during the fiscal year 1885-'86 amounted to \$1,693,807, and the imports to \$1,191,211. The exports to other provinces of the Empire for the same period amounted to \$761,500, and the imports to \$1,520,250. During the same fiscal year 60 vessels, measuring 45,466 tons, left the port of Fortaleza for foreign ports, whilst 391 national vessels, measuring 223,633 tons, and 4 foreign vessels, measuring 1,751 tons, sailed for other parts of the Empire.

Railways.—The Province of Ceará has two lines of railroads, viz :

Sobral Railroad (gauge 3 feet 8½ inches), from Camoëino, a sea-port, to the city of Sobral, 80 miles in actual traffic, and an extension from Sobral to Ipu, 34½ miles, in construction.

Baturité Railroad (gauge 3 feet 8½ inches). This line, with its three branches, will have 65 miles, and with a contemplated prolongation to the most fertile part of the province, Ceará will be free from these periodical droughts which devastate the land and afflict its inhabitants, as water can be easily carried from the numerous rivers of that locality.

PROVINCE OF MARANHÃO.

Population, etc.—The population of Maranhão is estimated at 550,000. Its capital (St. Luiz do Maranhão) is situated in latitude 2° 30' south, and longitude 46° 37' west of Paris.

Sugar production.—Sugar was at one time the leading industry of Maranhão, but the precarious condition of this article and the low prices all over the world caused the people to neglect its culture and apply themselves to the raising of cotton and rice. A considerable quantity of sugar is, however, shipped to Para, where no sugar is manufactured, owing to the more lucrative business in india-rubber, which occupies almost exclusively the attention of the people.

Soil.—The soil of Maranhão is well adapted to the raising of the cane, and the province could produce a considerable amount of sugar should remunerative prices assist.

Imports and exports.—The imports from foreign ports into Maranhão during the fiscal year 1885-'86 amounted to \$2,499,700, and the exports to \$2,088,177.

The inter-provincial commerce for 1885-'86 is represented to be : Imports, \$613,850 ; exports, \$805,000.

There are no reliable statistics as to the movement of the port of St. Luiz do Maranhão, but a considerable number of vessels sail therefrom to Portugal and England, and a regular line of American steamers, subsidized by the Brazilian Government, call at this port, both on their outward and return voyages from and to the United States.

F. SIMOENS DOS SANTOS.

BRAZIL.

REPORT OF ACTING CONSUL-GENERAL M'CALL, OF RIO DE JANEIRO.

I.—PROVINCE OF RIO DE JANEIRO.

Production.—It has been impossible to find actual statistics of production, and I doubt if such statistics have ever been published. In lieu thereof, I present the following statement of receipts of sugar at Rio de Janeiro for the periods and from the sources named :

[Each bag contains 123 pounds.]

	1885.	1886.
	<i>Bags.</i>	<i>Bags.</i>
From Campos	387,085	384,276
By the Dom Pedro II Railroad	4,074	22,582
By the Cantagallo Railroad		9,359
Total	391,159	397,197

The sugars received from the Campos district and that coming by the Cantagallo Railway were produced entirely in the province of Rio de Janeiro. Of that received by the Dom Pedro II road, it is safe to estimate that one-half was produced in the province of Minas Geraes, one-sixth in that of São Paulo, and one-third in that of Rio. By this calculation, and making an allowance of 200,000 (26,400,000 pounds) bags for annual consumption at place of production (which is at the rate of one-half pound per day per capita), we find that the production of sugar in this consular district for the year 1885 was 588,453 bags; for 1886 it was 541,479 bags. It is believed that this is a close approximation to the actual production.

Charges.—With respect to the item of "local charges" I beg to say that as yet I have not succeeded in obtaining information, and in order to save delay I forward this report now. These charges are different for almost every municipal district, so that it will take considerable time to secure the required information on this point.

Duties.—There is an export duty imposed by the General Government, amounting to 5 per cent. ad valorem. In addition, all sugar produced in the province of Rio de Janeiro pays, when exported, 3 per cent. ad valorem provincial duty. In the neighboring provinces of Minas, São Paulo, and Espirito Santo an equal duty is imposed. It should be borne in mind that this provincial duty is collected not only on sugar exported from the producing province to a foreign country, but also on sugar transported from the producing province to another province.

The import duty on foreign sugar amounts, under the present tariff, to 240 reis per kilogram—equivalent, with exchange at par, to nearly 6 cents per pound. This duty is imposed only by the General Government, the provincial governments being prohibited by fundamental law from levying duties on imports.

Trade.—The exports from Rio de Janeiro were as follows in the fiscal years 1884-'85 and 1885-'86:

Whither exported.	Description.	1884-'85.	1885-'86.
		<i>Bags.*</i>	<i>Bags.*</i>
Argentine Republic.....	White.....	3,498	150
	Brown.....	718	589
Great Britain.....	White.....		1,251
	Brown.....	881	700
Portugal.....	White.....	5,298	3,570
	Brown.....	3,351	1,635
	Refined.....	29	35
Uruguay.....	White.....	205	3,446
	Brown.....	2,075	1,987
	Refined.....	8	6
United States.....	White.....		964
	Brown.....	18,009	18,733
All other countries.....		4	106
Total.....		29,046	33,127

* 132 pounds each.

The official value of the shipments was, in the fiscal year 1884-'85, 277:772\$238; in the year 1885-'86, 328:691\$110.

In the publications issued by the custom-house of Rio de Janeiro the imports of sugar, glucose, and sugar-candy are given together. In the fiscal year 1884-'85 the quantity of these articles imported at Rio de Janeiro was 36,205 kilos, valued at 13:783\$234; in 1885-'86 the quantity was 39,131 kilos, value 14:538\$935.

The proportion of sugar among these imports was not more than one-third—or, in round numbers, 12,000 kilos or 200 bags. By far the larger part of this sugar comes from Germany.

II.—BRAZIL.

Production.—The principal sugar-exporting provinces are the following and in the order given: Pernambuco, Bahia, Alagoas, Sergipe, Maranhão, and Rio de Janeiro. A recent publication estimates the average annual production of the whole Empire at 400,000 tons, of which three-fourths are exported and one-fourth consumed at home. The same publication estimates the average yearly exportation of all national products at 700,000 tons; thus making the exportation of sugar some 43 per cent. of the total exportation, regard being had to weight. As to value, sugar exportation amounted to less than one-sixth.

The refined sugar most generally used in Brazil is the white powdered variety, prepared in the Empire. There is little demand for loaf-sugar.

Cane.—Analyses of cane made last month at the central sugar mill of Barcellos, in the Campos district of this province, show a minimum sugar percentage of 14.67 and a maximum of 19.26. Campos cane has been known to contain as much as 22 per cent. of sugar. The average extraction of sugar from this cane is 6 per cent. of the weight of the cane.

Trade.—The following is a statement of the exportation from all Brazil from 1882-'83 to 1884-'85. It is taken from the report of the ministers of agriculture, presented to the general assembly in 1886:

Fiscal years.	Quantities.	Value.
	<i>Bags.</i>	
1882-'83.....	2,715,161	21,525,327\$000
1883-'84.....	5,352,357	37,629,610\$000
1884-'85.....	4,822,779	21,055,960\$000

Comparisons of these figures with the shipments from the port of Rio de Janeiro will show that the latter exports less than one-hundredth part of the total exportation.

Proposed sugar legislation.—The effort initiated some months ago for ameliorating the condition of the Brazilian sugar trade has been conducted with earnestness, and apparently with harmony of aim and action. The central organization engaged in this effort is the Centro da Industria e Commercio de Assucar, inaugurated in this city last February. It has received the co-operation of the long-established sugar guilds of Pernambuco and Bahia, the great sugar markets of the country. The programme mapped out by this body is comprehensive and intelligent and well calculated to revive the sugar interest of Brazil, at one time pre-eminent in the markets of the world but latterly almost moribund, owing chiefly to the great development in the production of beet sugar. The idea of the propaganda is, that relieved of its heavy burdens of home taxation, manufactured by improved processes, and granted a foothold in consuming countries, the cane sugar of Brazil can contend successfully with any other or with the product of the beet, and can reach proportions of culture and trade far greater than any yet attained.

Some of the features of this programme are: The abolition or considerable reduction of export duties, general and provincial; reduction in freight charges on railroads, both on the product and the raw material; the offering of premiums for production and exportation; holding expositions of cane products in Rio and in foreign markets; special favors for mills and factories established without Government aid and in unprosperous conditions; the establishment of a laboratory for studying improved methods of culture and manufacture; the creation of schools destined to train personnel for this especial branch of industry. Another feature is, as the Department has already been informed, the obtaining of treaties with nations imposing heavy duties on Brazilian sugar, and especially the negotiations of a treaty of reciprocity with the United States, which country, it is declared, "can be made the leading market for this product."

Judging from newspaper utterances and the views of public men, the scheme of a treaty with the United States has a strong backing. Some remarks made recently before the lower house of the general assembly, by a member of that body, will serve as an indication of the sentiment on this point. Speaking to a proposition affecting the sugar industry, the deputy said:

Europe no longer imports Brazilian sugar, but, on the contrary, has established duties for the protection of the beet product. The only market left to us is the United States, and there the sugar of Cuba and Porto Rico enjoys all favors, and freight being cheaper from Cuba to the United States than from Brazil to the United States, the result is that the importation there from Cuba and Porto Rico has increased, while that of our sugar has decreased. There is, therefore, urgent need of opening a new market, and increasing our sugar exportation by a convention with the United States, which will secure to our product the favors granted to that of Cuba.

These views, which emanated from one of the deputies for the province of Pernambuco, are believed to be shared by all the delegations from the sugar-producing districts of the north and their constituents, as well as largely by the people of this part of the Empire who are interested in the production and exportation of sugar.

One of the aims of those who would revive the sugar trade stands a strong chance of immediate realization. I refer to the abolition of the export duty imposed by the General Government. The estimate of the general receipts of the Government for the coming fiscal year was approved in the House of Deputies to-day with an amendment relieving sugar from this duty. The matter will now come up in the Senate, where little opposition is expected. If the amendment is successful in that body, the change provided for will go into effect on January 1, 1888, the fiscal year in Brazil being made, by recent enactment, to correspond with the civil year, the new arrangement to begin in 1888. It is to be noted, further, that the president of the province of Rio de Janeiro in his message to the legislative assembly of the province, which met last Monday, recommended the abolition of the provincial export duty on sugar. It is generally thought that the assembly will legislate accordingly, and that similar action will be taken in other provinces.

This recommendation of the president of Rio indicates that the interest in the sugar revival is not confined to the provinces of the north. It is true, as stated above, that the port of Rio de Janeiro contributes only a small share to the total sugar exportation from Brazil, but it is also true that in a considerable section of the province the sugar industry is the principal one and represents large amounts of capital. It is to be borne in mind, further, that coffee

cultivation in the province of Rio is, in the opinion of many competent observers, showing signs of decided decay, arising from soil exhaustion and the great age of many of the trees; to which is to be added the possibility of loss arising from a disease which has attacked the trees in some sections, and which it is feared will spread widely. An idea of the destructiveness of this disease may be gathered from the fact that in only three municipal districts of the province the estimated annual loss from this source is about two million dollars, many planters harvesting less than one-tenth of the former product of their fields. With coffee culture confronted by these menacing evils, the agricultural community would gladly hail a more certain and lucrative occupation, so that under favorable conditions of trade the sugar output in the provinces of Rio de Janeiro would take on a vast increase. In other southern provinces also there are many districts splendidly adapted to sugar growing.

Another object of the sugar propagandists is to secure the repeal of the import tax on machinery destined for the construction of sugar-mills. Under the former Brazilian tariff such machinery was exempt from duty, but by the revised tariff, which went into effect on July 1 of the present year, such articles, though nominally free, are subjected to a charge called *expediente*, amounting to 5 per cent. *ad valorem*. Efforts have been made lately in the general assembly for the removal of this burden, but these have only partially succeeded. A compromise has been reached, by which the Government is empowered to collect or remit this charge, as it may see fit in each individual case, all kinds of machinery being embraced in this provision. The measure embodying this compromise passed the lower house to-day and now goes to the Senate. The charge, by whatever name it may be called, is really a tariff duty, and if it is collected, the inevitable result will be to increase the cost of machinery to the Brazilian sugar manufacturer, who just at this time is a veritable sick man, and needs all the bolstering and nursing he can get.

CHAS. R. MCCALL,
Acting Consul-General.

UNITED STATES CONSULATE-GENERAL,
Rio de Janeiro, Brazil, September 14, 1887.

BAHIA.

REPORT OF CONSUL PATTON.

Production.—I can find no statistics relative to the production of sugar in this district. There being no tax on plantations, statistics of production do not seem to have interested any one, and the leading merchants claim that the production is very little above the amount shipped, as sugar is not at all extensively used here.

Charges.—Local charges on plantations, none; the sole source of revenue being export and import duties.

Duties.—Export duty, about 1½ cents per pound for the ordinary brown sugar. There is no sugar imported into this province. I suppose it would follow the general course of importations, and pay a very high *ad valorem* duty.

Exports—No report having been issued from the custom-house for the fiscal year ending June 30, 1887, I take the following from the report of the "Associação Commercial" for the calendar year of 1886:

	Pounds.
To the United States.....	78,216,565
To Canada	3,246,205
To Great Britain.....	2,667,194
To France	233,734
To Portugal.....	168,782

W. O. PATTON,
Consul.

UNITED STATES CONSULATE,
Bahia, August 31, 1887.

PARA.

REPORT OF CONSUL CLAYTON.

There are a few sugar plantations around Para, but the cane grown thereon is used almost entirely in the manufacture of rum.

ROBERT CLAYTON,
Consul.

UNITED STATES CONSULATE,
Para, October 14, 1887.

PERNAMBUCO.

REPORT OF CONSUL ATHERTON.

Production.—Pernambuco, 125,133 tons; Maceio, 29,368 tons; Parahyba, 5,092 tons; total, 159,593 tons.

Taxes.—There are no local charges for taxes.

Duty.—The imperial export duty is 5 per cent. A bill has passed one house taking the duty off. The provincial duty in Pernambuco and Maceio is 3 and 5 per cent. additional. In Parahyba the provincial duty is 5 per cent. The import duty on foreign sugars is from 5 to 6 cents.

Trade.—To the United States, 62,540 tons; to Great Britain, 23,201 tons; to Canada, 12,783 tons; to southern and Brazilian ports, 61,069 tons.

HENRY L. ATHERTON,
Consul.

UNITED STATES CONSULATE,
Pernambuco, September 3, 1887.

RIO GRANDE DEL NORTE.

REPORT OF CONSULAR AGENT NELSON, OF NATAL.

Production.—The sugar produced in this district is estimated at 21,600 tons.

Taxes.—A provincial tax of, say, 25\$000 to 35\$000 per plantation.

Duties.—The export duties, until this season, were 10 per cent., 5 per cent. being general and 5 per cent. provincial. Under the new law the general tax is abolished, but the provincial is still in force.

The import duty is 240 reis per kilogram, or about 5 cents per pound; in sacks, 2 per cent. discount; in boxes or barrels, 15 per cent. discount, with an additional 3 per cent. provincial duty.

Trade.—The sugar exports were, for the year ending June 20, 1887, to England, 16,429 tons; to Canada, 577 tons; the remainder being forwarded to Pernambuco.

No direct importations are made either for the United States or Canada, only coal is imported from England by the railway company for its own use.

LYLE NELSON,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Natal, August 23, 1887.

BRITISH GUIANA.

FIRST REPORT OF CONSUL BUNKER, OF DEMERARA.

Production.—British Guiana in 1886 produced 124,283 hogsheads sugar, equal to 111,855 $\frac{1}{2}$ tons, divided and priced as follows, exclusive of local consumption: 68,000 $\frac{1}{2}$ hogsheads yellow vacuum-pan sugar, \$60.20 per hogshead; 40,000 hogsheads refining sugar, \$53.86 per hogshead; 6,283 hogsheads muscovado sugar, \$49.24 per hogshead; 10,000 hogsheads molasses sugar, \$43.92 per hogshead; giving a medium of \$56.30 per hogshead, or, as near as possible, \$62.55 $\frac{1}{2}$ per ton.

Taxes and local charges.—Estates pay an acreage tax of \$2 per annum per acre for all land under sugar-cane cultivation, and 2 cents per annum per acre for all land not cultivated.

Each estate is obliged by law to keep its public roads in order; the material, burned clay, being provided by the Government free of expense.

The Government provides qualified medical attendance free for all laborers on estates. About \$100 per annum is charged by the physician for attending on the manager, overseers, and their families.

Duties.—Estate supplies admitted duty free are: Machinery used in drainage, for manufacturing manure, for electric lights; locomotive engines; railway plant; boilers; boiler plates and tubes; pans; tanks, and other vessels used exclusively for manufacturing sugar; locks or sluices for sea defenses or water supply; iron cane punts; iron bridges; grating bars; tile and brick making machinery; animal charcoal; lime; manures; steam plows; steam diggers, and steam dredges.

There are no export duties.

Import duties on foreign sugars 4 cents per pound.

Sugar trade, with countries of export.

	Hogsheads.
United States	47,528 $\frac{1}{2}$
United Kingdom	74,544 $\frac{1}{2}$
British West Indies	108 $\frac{1}{2}$
British North America	1,754 $\frac{1}{2}$
Bermuda	119 $\frac{1}{2}$
Danish West Indies	16
Holland	$\frac{1}{2}$
French Guiana	80 $\frac{1}{2}$

	Hogsheads.
French West Indies.....	5
Central America.....	66 ² / ₄
Dutch Guiana.....	3 ¹ / ₂
Dutch West Indies.....	11 ¹ / ₂
Portugal.....	53 ¹ / ₄
Total	124, 288 ¹ / ₄

D. T. BUNKER,
Consul.

UNITED STATES CONSULATE,
Demerara, August 17, 1887.

DEMERARA.

SECOND REPORT OF CONSUL BUNKER.

A careful inquiry among planters and managers develops the fact that very many sugar estates have abandoned the making of fine crystals for the English market, and will, for the coming year, make only dark sugars for the American refiners, it being a fact well established that the United States pays the highest price for raw sugar of any country in the world, and the class of sugars purchased thereby can be manufactured much cheaper than crystals.

Demerara planters can make common sugars as cheaply as any other planters, but they cannot compete with American refiners.

Last year British Guiana exported 124,283 hogsheads of sugar, of which amount 47,523 hogsheads were shipped to the United States. According to present indications a much larger quantity will go thither this year. I estimate the amount at from 60,000 to 70,000 hogsheads, while a native sugar merchant says it will be nearer 80,000 hogsheads.

Very many American vessels arriving here are chartered for the round trip, which has operated to their disadvantage in numerous cases, as they could have made better charters here had they been free to do so. The result has been that British steamers plying between this port and England and large ships from Calcutta have been diverted from their regular routes to carry sugars to the United States. I am credibly informed that these steamers intend to pursue the same course the coming season.

I would suggest that it may be well for owners and agents of American vessels, in making charters for Demerara, to consider whether it would not be for their advantage to leave the matter of homeward cargoes to the judgment of masters of vessels.

Recent charters for New York and Philadelphia have been made at from 13 to 15 cents per 100 pounds.

D. T. BUNKER,
Consul.

UNITED STATES CONSULATE,
Demerara, September 2, 1887.

DUTCH GUIANA.

REPORT OF CONSUL BARNETT.

The production of sugar in this consular district is estimated as follows for the three last years:*

1884: Muscovado, 8,333,577 pounds; vacuum pan, 7,847,595 pounds; total, 16,181,172 pounds.

1885: Muscovado, 4,801,167 pounds; vacuum pan, 7,174,849 pounds; total, 11,976,016 pounds.

1886: Muscovado, 5,025,636 pounds; vacuum pan, 10,370,115 pounds; total, 15,395,751 pounds.

Taxes.—There are no taxes imposed on plantations in general beyond a nominal acreage tax, to which a few are still subject in virtue of a very old ordinance.

Those estates or plantations on which indentured East Indian immigrants are employed have to contribute, by way of a tax, for a regular medical attendance on these laborers, *i. e.*, for each male adult \$2 and for each female adult \$1 per annum; and have necessarily to meet the expenses incidental to the employment of indentured labor as defined by ordinance.

Attorneys or agents of plantations have, in addition, to pay for an annual license, which is compulsory on every one in the pursuit of any profession or calling.

Duties.—Pending the promulgation of a revised tariff of import and export duties, which, as is anticipated, will come into force on first January next, and which will abolish entirely the export duty on sugar and its concomitants, that duty on these commodities is, in the mean time, suspended.

The import duty on foreign sugar is at present, for refined, 5 cents Dutch currency (2 cents American) per kilogram; and for all others 4 cents, Dutch, per kilogram; but will, in terms of the new tariff, be at the rate of 10 cents (4 cents American) per kilogram on all goods indiscriminately.

Trade.—The extent of the sugar trade for the last three years is shown in the following statements:

Quantities of sugar exported from Dutch Guiana during the years 1884, 1885, and 1886.

Whither exported.	Muscovado.	Vacuum pan.	Total.
1884.	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Holland	732,721	828,800	1,561,521
United Kingdom	2,260,423	7,340,655	9,601,078
North America	3,163,734	827,933	3,991,667
All other places	1,146,620	.....	1,146,620
Total	7,293,498	8,997,388	16,290,886
1885.			
Holland	1,342,958	896,851	2,129,809
United Kingdom	107,163	6,780,595	6,887,758
North America	2,338,402	112,75	2,451,077
All other places	338,467	131,859	470,326
Total	4,026,980	7,011,980	11,038,970
1886.			
Holland	815,762	928,064	1,743,846
United Kingdom	283,186	5,773,792	6,056,978
North America	2,435,302	496,786	2,931,988
All other places	32,634	705	43,339
Total	3,566,784	7,199,367	10,776,151

* The quantities throughout this report were reduced from kilograms to pounds in the Department.

Statement showing the imports of sugar into Dutch Guiana during the years 1884, 1885, and 1886.

Years.	Whence imported.				
	Holland.	United Kingdom.	North America.	All other places.	Total.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1884.....	313,771	736	28,036	115,146	457,709
1885.....	268,348	730	79,600	22,189	370,866
1886.....	311,346	77	43,070	6,502	3 2,995

The foregoing imports were composed of refined sugars, with the exception of 75,000 pounds, 20,000 pounds, and 5,000 pounds of yellow sugars for the years 1884, 1885, and 1886, respectively, from "all other places."

HENRY BARNETT,
Consul.

UNITED STATES CONSULATE,
Paramaribo, August 23, 1887.

CHILI.

COQUIMBO.

REPORT OF ACTING CONSUL SCARISBRICK.

Production.—There is no sugar produced in this district.

Taxes.—There are no local charges on plantations.

Duties.—There are no export duties levied on sugars. The import duties are as follows: American and French sugars, \$5.85 per quintal (101 pounds); Peruvian raw or granulated, \$3.85 per quintal.

Sugar imports.—American, 60,600 pounds; Peruvian, 100,100 pounds; French (beet), 4,500,000 pounds.

F. SCARISBRICK,
Consul.

UNITED STATES CONSULATE,
Coquimbo, August 20, 1887.

VALPARAISO.

REPORT OF CONSUL ROMEYN.

Production.—There are no sugar plantations in this consular district.

Duties.—There are no export duties. The import duty is 35 per cent. ad valorem.

Trade.—The latest available official statistics giving the imports of sugar are for the year 1885. According to these the imports were as follows:*

* Reduced in the Department from kilograms and Chilian currency to American weights and money.

WHITE SUGARS.

Whence imported.	Quantity.	Value.
	<i>Pounds.</i>	
Peru	1,081,773	\$75,878
Germany	54,343	4,382

REFINED SUGARS.

Great Britain	33,837	3,648
Germany	26,430	2,432
France	41,013	3,648
United States	9,702	911
Total	1,252,078	90,879

JAMES W. ROMEYN,
Consul.

UNITED STATES CONSULATE,
Valparaiso, August 26, 1887.

ECUADOR.

REPORT OF CONSUL-GENERAL M'GARR.

Production.—The production of sugar in Ecuador is about 11,000,000 pounds annually, of which about 6,000,000 pounds are produced in this province (Guayas), and the residue in the Andean region. There are here five sugar plantations with steam-power machinery, the largest of which produces 3,000,000 pounds yearly.

The production of sugar has greatly increased in the province within the past three years—more than doubled, and the quality, I am told, is equal to the best imported article.

Local charges.—The only local charge on plantations is a tax of one mill on the dollar of the land value, which value is ascertained or fixed for the purpose of the tax by the quantity of sugar produced on it. There is no tax on the machinery or buildings.

Duties.—There is no export duty on sugar. The import duty on foreign sugars is 5 cents per kilogram and 20 per cent. additional for local purposes, making the total duty 6 cents per kilogram, or a little less than 3 cents a pound. This duty is imposed on all imported sugar, without reference to its quality or value.

Sugar imports.—About 200,000 pounds were imported last year from the United States, Germany, and France, of which the United States furnished about one-half and Germany probably one-third. The whole was crushed loaf-sugar.

There has been a great decline in the quantity imported during the last two years, owing to the large increase in the home production, and it is believed that the importation of sugar has well-nigh ceased. A little will continue to be imported to supply the small demand for loaf and crushed sugars, which are not made in this country.

Cost of production.—The high duty and cheap labor have greatly stimulated the production, the cost of which, I am told, on the large

plantations is only about 4 cents a pound, while the sugar is sold in this market at 11 cents a pound.

I inclose a specimen of the sugar grown and manufactured in the province.

OWEN MCGARR,
Consul-General.

CONSULATE-GENERAL OF THE UNITED STATES,
Guyaquil, August 16, 1887.

PERU.

REPORT OF CONSUL BRENT.

In reply to the circular from the Department dated the 14th July last, I beg to submit the following answers:

The production of sugar in this consular district of Callao is 15,400 tons yearly.

Local charges on plantations, none.

Export duties, none.

Import duties on foreign sugars per kilogram, ad valorem 20 cents; on this, 65 per cent.

Extent of sugar trade with foreign countries, 11,000 tons.

The Department of Lima and province of Callao are not the principal sugar-producing districts of Peru. These are farther to the north, near Chimbote, Salaverry, and Trujillo. The sugar output from Peru in 1876-'77 was over 75,000 tons per year. Now, owing to the competition of the article manufactured from beet root, the difficulty experienced in obtaining labor, and the heavy losses attendant on the war, which crippled many of the largest planters, the export will not reach 40,000 tons per year.

H. M. BRENT,
Consul.

UNITED STATES CONSULATE,
Callao, August 14, 1887.

IQUIQUE.

REPORT OF CONSUL CLAYTON.

Production.—Sugar is not produced in this district nor in any portion of Chili.

Duty.—The following is the official classification and valuation of imported sugars, on all of which the duty is 35 per cent.

[Spanish quintal = 101.48 pounds.]

Description.	Per cent.	Per quintal.
1. Refined, entire, broken or ground, damp or dry		\$22.00
2. White, unrefined, ground or granulated, damp or dry	80.434	18.50
3. Granulated, of the first product, damp or dry	60.869	14.00
4. Granulated, of the second product, damp or dry	45.652	10.50
5. Nos. 24, 19, 18, and 17, Dutch scale, damp or dry	70.434	16.20
6. Nos. 16, 15, 14, and 13, Dutch scale, damp or dry	58.673	13.50
7. Nos. 12, 11, 10, and 9, Dutch scale, damp or dry	45.662	10.50
8. Nos. 8 and following, Dutch scale, damp or dry	37.886	8.70

Trade.—The following statement shows the imports of sugar into Chili during the years 1883-'84 and 1885, and the imports into Iquique alone for the year 1886 :

Importations of sugar into Chili.

Class.	Whence imported.	1883.		1884.	
		Into consular district of Iquique.	Into other Chilian ports.	Into consular district of Iquique.	Into other Chilian ports.
		<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
White	Peru	768,969	1,675,066	768,114	2,610,775
Brown	do	48,186	8,362,701	35,536	11,744,179
Refined	France	56,878	4,697,464	50,905	3,639,005
Do	Great Britain	220,573	2,505,476	272,379	2,217,073
Do	Germany	378,435	3,971,091	442,525	6,354,852
Do	United States	22,359	1,054,953	18,173	694,241
Do	Peru	104,307	42,705	68,004	7,950
Crystallized	Great Britain		2,010		1,045
Do	Peru			612	
Total		1,613,570	22,311,496	1,646,398	27,249,210

Class.	Whence imported.	1885.		1886.	
		Into consular district of Iquique.	Into other Chilian ports.	Into consular district of Iquique.	Into other Chilian ports.
		<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
White	Peru	298,241	2,122,097	480,574	
Brown	do	20,825	12,036,604	28,994	
Refined	France	88,079	3,276,645	26,671	
Do	Great Britain	34,309	1,318,440		
Do	Germany	134,863	2,716,126	215,308	
Do	United States	5,513	219,171	15,369	
Do	Peru	281,068			
Crystallized	Great Britain		614		
Total		852,928	21,689,707	776,904	

J. W. MERRIAM,
Consul.

UNITED STATES CONSULATE,
Iquique, August 18, 1887.

REPUBLIC OF COLOMBIA.

BARRANQUILLA.

REPORT OF CONSUL VIFQUAIN.

Production.—A fair quantity of sugar, called *panela*, is manufactured in this district for home consumption; it is used by all classes, and is said to be very wholesome. The chief place of manufacture in my consular district is in the San Marta province of the department of Magdalena. None is exported. Some ten years ago an attempt at exportation was made, but it was not a success; it would not preserve its qualities in the ocean transfer.

The *panela* is made of sugar-cane; when ready for sale it is shaped like tablets of chocolate, of about the same size and the same color.

The reason why it is so dark is owing to the low altitude of the land where the cane is raised. In some parts of Colombia, at a higher altitude, the panela is almost as white as loaf-sugar, but not near as solid.

This panela answers all purposes. It is healthy and cheap. It is said to be a panacea for coughs and diarrhea. It makes a very cooling drink when mixed with water, and many families never use any other drink. They use it in the place of pure water, just as in Paris in former days, when people generally put a small piece of loaf-sugar in their glass of water.

This district does not manufacture panela enough for its own consumption. It receives considerable quantities from other portions of Colombia.

This Republic contains unequaled sugar regions. Some of the cane in the Cauca valley has produced during the last eighty years—an authentic fact. It grows to gigantic proportions, is cut down every year, and from the root grows anew, richer than ever.

Charges.—There are no local charges on plantations.

Duties.—Export duties, none. Import duties on sugars, 5 cents per kilogram.

Trade.—The records of this office show that landing certificates were given during the fiscal year 1886-'87 for the entry of 750 half barrels of cut loaf, all from New York. For the fiscal year 1885-'86 the same records show entry of 350 half barrels cut loaf; and for the year previous, 370 half barrels. Hence, during the last fiscal year, 1886-'87, the increase over other years is more than 100 per cent. The sugar trade is almost exclusively with New York. Yet, owing to the debentures, it is made evident that the foreign product, the "raw material" for sugar, before it is refined, must have an influence over our domestic product. I am told Cuba furnishes the "raw material," from which the United States refiners manufacture the loaf-sugar shipped to this port.

This is about the sum total of the sugar imported at this place.

VICTOR VIFQUAIN,
Consul.

UNITED STATES CONSULATE,
Barranquilla, August 7, 1887.

VENEZUELA.

REPORT OF CONSUL BIRD, OF LA GUAYRA.

Production.—This industry, owing to the heavy decline in prices and the competition of the beet-root sugar, has gradually decayed, so much so that the country now raises barely enough for home consumption. The labor and expense of raising and preparing it for market when compared with that incurred on the coffee and cocoa crops, is so much in favor of the latter that this consideration has also operated against it, and planters find more profit in coffee at 15 cents per pound and cocoa at 28 cents per pound. The production, therefore, as may be inferred, is nominal, and from a commercial point of view is not to be considered.

Taxes.—There are no local charges, such as taxes, etc., on the plantations, all the revenues of the Government being chiefly derived

from duties on imports. Nor is there any internal revenue or export duty levied on the sugar product.

Imports prohibited.—The importation of foreign sugars is prohibited; hence a low grade of sugar that is sold at retail for 5 cents per pound in the United States is worth from 8 to 10 cents per pound in Venezuela.

Trade.—As above intimated, no sugar is exported from the country, and with importations prohibited, it will readily appear that the extent of the foreign sugar trade of Venezuela amounts to nothing.

WINFIELD S. BIRD,
Consul.

UNITED STATES CONSULATE,
La Guayra, October 3, 1887.

CIUDAD BOLIVAR.

Sugar is not produced in this district; that consumed here is brought from La Guayra, and manufactured at Carácas and Valencia. It is very inferior in quality. The importation of foreign sugars is prohibited.

GEO. F. UNDERHILL,
Consul.

UNITED STATES CONSULATE,
Ciudad Bolivar, August 20, 1887.

MARACAIBO.

REPORT OF CONSUL PLUMACHER.

Production.—This consular district is composed of the States of Falcon, Zulia, and Los Andes. In Falcon the production of sugar is so entirely insignificant, cane growing not being an industry of any importance, that it may properly be excluded from any statistical report.

In Zulia, along the margin of the lake, there are various cane plantations, some of them of large extent, giving an average annual production as follows:

Brown sugar, or papelon.....	pounds..	4,752,000
White sugar.....	do....	250,000
Molasses.....	gallons..	148,800

In the State of Los Andes the production is somewhat less than in Zulia, averaging annually:

Brown sugar.....	pounds..	3,000,000
White sugar.....	do....	150,000
Molasses.....	gallons..	98,000

A total annual production for the district:

Brown sugar.....	pounds..	7,752,000
White sugar.....	do....	400,000
Molasses.....	gallons..	246,800

Nearly all the molasses and a great quantity of papelon are sent to the distilleries and sold to the public in the form of rum, which is generally of a very fair quality, with a grade of about 22° Cartier's scale.

Taxes.—There are neither national nor State taxes upon land in cultivation or upon products, but there are certain municipal dues, which vary slightly according to the locality. The average amount of these dues for this consular district may be estimated as 10 cents per carga of 176 pounds of sugar, and 7½ cents per carga of 16 gallons of molasses.

Duties.—By the terms of the constitution of Venezuela no duties can be imposed upon exports. Nevertheless, no article of domestic production can be exported without the payment of certain dues to the Government, which take the form of permission to embark, stamps, stamped paper, etc. In the case of sugar and molasses these dues amount to 40 cents upon a value of \$200 in United States money.

The importation of sugar, and cane product generally, is prohibited by law.

Trade.—Since 1884 no sugar has been exported to foreign countries from this consular district. I give a résumé for four years (value in United States gold):

1881.....	\$38
1882.....	2,615
1883.....	5,767
1884.....	3,112

Shipments to the United States and to Germany during the year 1884 turned out exceedingly unsatisfactory, resulting in every case in absolute loss. Only brown sugar, or papelón, was exported, and the mode of the elaboration of this product renders it apparently of but little use to refiners.

Practically there is no exportation of sugar to foreign countries. Large quantities, both of sugar and molasses, are sent to other sections of Venezuela, however.

Manufacture.—Generally speaking, the process of sugar making in this district is crude and old fashioned.

In the State of Zulia there are six mills worked by steam, but the great majority derive their motive power from oxen, and in many cases the rollers are rudely made of wood, with or without iron facings.

There are two or three centrifugals scattered throughout the district, but the general method of making white sugar is by the old clay process, the result of which is naturally an inferior article.

The vacuum pans are unknown, the boiling being accomplished in batteries of from one to four open pans, according to the importance of the plantation.

The liming is done directly in the first pan of the series, as special defecating apparatus has not as yet been introduced; neither has the elaborate filters and clarifiers now in use in nearly all sugar-producing countries; and, as a rule, the juice is run directly from the mill into the pans, with no intermediate operation other than straining.

In making white sugar the juice is boiled to the usual graining point, run into coolers, and then operated upon either by the centrifugal or clay process.

Drying cylinders, however, are not used as, for convenience of transport, both the brown and white sugars are pressed into bricks or loaves; the latter form, however, being of rare occurrence in this district.

These bricks are packed in bundles of ninety-six each, two of which, weighing in all about 176 pounds, form a carga, or a load for one donkey, which is the standard for buying and selling in large quantities.

In the making of the brown sugar, or papelon, the boiling is continued until long after the graining point is reached, and the sirup run into molds. This forms a solid, homogeneous mass, with the crystallization destroyed by excessive boiling, which is probably the reason of its unfavorable reception in New York and Hamburg.

Cultivation.—The planting and cultivating of cane in this district are not attended with any special peculiarities. Cutting may be done from fourteen to eighteen months from the seed, and from ten to 12 months from the r. toons.

Some planters burn off the squares after cutting, but the majority seem to be in favor of simply hauling off the dead leaves and tops from the roots, and allowing the trash to rot between the rows. In close planting the latter method would not be practicable, but as here the distance between the rows is about 6 feet, it is said to cause no inconvenience.

Irrigation is not practiced, and the cane is subjected to the disadvantage of the extremes of heavy rains and protracted droughts. The roots, however, live for many years, producing yearly crops without apparent degeneration, although in Zulia the crude juice is of a low grade, rarely exceeding $7\frac{1}{2}^{\circ}$ or 8° , while in the State of Los Andes, in the higher regions, a grade of 13° has been observed. In the latter section, however, slowness in maturing is a disadvantage, as it occasionally requires a period of three years from the seed to put the cane in condition for profitable cutting.

Labor.—The sugar industry could be made a very important one with careful selection of land and facilities for irrigation. Improved machinery would then follow as a matter of course, and Venezuela would not be, as now, almost helplessly dependent for prosperity upon her one staple—coffee.

It is true that for the success of extensive sugar growing in this country a more plentiful and reliable supply of labor would be necessary, and it has been frequently suggested that the contract system, as practiced in Peru and Cuba with Chinamen, and in Trinidad and Demerara with East Indian coolies, might be introduced profitably in this Republic. A strong opposition has always, heretofore, prevented these measures from being carried into effect, and the Government has never been willing to sanction a system which, as is alleged, savors too much of slavery to be permitted in a free republic.

The introduction of Chinamen, however, has no doubt been the cause of the immense development of the sugar industry in Peru, some estates before the war with Chili having from fifteen hundred to two thousand laborers each. No country has ever given such average returns in this branch of agriculture as Peru, owing not only to the elaborate system of labor, but also to the universal practice of irrigation, a fact which our Venezuelan planters would do well to appreciate.

Irrigation.—Irrigating facilities are, in my opinion, of the greatest importance in the cultivation of cane, and I would again refer to the Peruvian coast, where there is practically no rain during the entire year, but where magnificent results have been obtained by judicious irrigation from the small rivers which flow from the Cordillera into the Pacific.

E. H. PLUMACHER,
Consul.

UNITED STATES CONSULATE,
Maracaibo, September 2, 1887.

WEST INDIES.

BRITISH WEST INDIES.

BARBADOES.

REPORT OF CONSUL REED.

Area under cultivation.—Barbadoes, though the smallest of the British West Indies, is the largest producer of sugar. Every other industry but that of sugar has been given up. The principal cause of this was the necessity of providing means of support for the teeming population. The island is of coral formation, and, with the exception of a line of hills running from north to south, is generally flat. It has an area of 166 square miles, containing 106,470 acres, of which 93,032 acres are devoted to production of sugar, divided as follows, viz: 85 estates with steam mills, 27,875 acres; 9 estates with steam and vacuum pans, 4,084 acres; 372 estates with and without wind-mills, 61,073 acres; in all, 466 estates containing 93,032 acres, all of which are in cultivation.

Tenure and rent.—The tenure of land is freehold, and in renting an estate the rent is calculated at about 6 per cent. of the assessed value.

Labor.—Labor commands but very low prices; the reasons for this being the cheapness of living and the large population, averaging 1,021 persons to the square mile, having no other resort than the cane field. The laborers are located on the estates, in frame dwellings, with small patches of land attached which they generally cultivate, those occupying half-acre plots paying 20 cents weekly, and quarter-acre plots 10 cents weekly.

The male and female laborer will spend for clothing about \$10 per year. The male can live for about 60 cents weekly, while the same living costs the female 45 cents weekly.

The male laborer receives 20 cents a day, the female 15 cents, and children from 8 to 10 cents, with the addition during the crop season of a small quantity of molasses every Saturday. The principal articles of food used by them are sweet potatoes, yams, rice, salt fish all the year round, and fresh fish during the season.

Machinery and tools.—Tools in general use are the common plantation hoe and fork, ordinary English plows, both single and double mold-board, subsoil plows, and cane-bill for cutting cane. The machinery in use is of English manufacture.

Planting, etc.—The cane is planted about December and is fully ripe and ready for cutting in about fifteen months, being thoroughly weeded every week until the banks are covered. There is an extensive use made of chemical manures, which are tested on the spot and sold according to scale, the best qualities bringing \$60 a ton.

The "Bourbon" cane seems to be the best adapted for the island, and is mostly used.

Sugar production.—There are three distinct kinds of sugar manufactured, viz: Vacuum pan, Muscovado oscillated, and Muscovado common process.

The amount of vacuum pan manufactured is about 4,000 tons yearly. The estimated cost of manufacturing Muscovado common process is

about \$5 per ton, and the percentage of molasses is from 60 to 75 gallons per ton of sugar; the other kinds cost about \$10 per ton.

The output for the last eleven years has been as follows:

Years.	Quantity.	Years.	Quantity.
	<i>Hogsheads.</i>		<i>Hogsheads.</i>
1877.....	52,579	1883.....	57,881
1878.....	48,511	1884.....	67,083
1879.....	62,146	1885.....	72,461
1880.....	59,217	1886.....	50,637
1881.....	57,089	1887 (estimated).....	72,000
1882.....	59,984		

Local charges, taxation, etc.—Barbadoes is divided into eleven parishes, each of which elects its own vestry who make the rate of taxation according to requirements of the parish; this, of course, varies from year to year. The rate for 1886 fixed for each parish was as follows, viz:

Parishes.	Rate per acre.	Parishes.	Rate per acre.
St. Lucy.....	\$1.12	St. George.....	\$0.72
St. Michael.....	.96	St. Thomas.....	.70
St. John.....	.88	St. Peter.....	.68
St. James.....	.84	St. Philip.....	.66
St. Joseph.....	.80	St. Andrew.....	.60
Christ Church.....	.44		

Duties.—There are no export duties. The only import duty is on refined foreign sugars, which is \$2.40 per 100 pounds.

Sugar exports.—The following table gives the summary for ten years. In determining the value the official estimate is used, which prior to 1884 was \$72 per hogshead; since that time it has dropped to \$48 per hogshead.

Statement showing the quantities and value of sugar exported for ten years.

Years.	Whither exported.								Total.	
	Great Britain.		United States.		British North American provinces.		Bermuda, etc.			
	Hhds.	Value.	Hhds.	Value.	Hhds.	Value.	Hhds.	Value.	Hhds.	Value.
1877	31,633	\$2,291,256	14,877	\$1,035,180	913	\$65,772	146	\$10,548	47,809	\$3,402,756
1878	29,735	2,141,172	12,140	874,116	1,406	101,268	224	16,146	43,509	3,182,702
1879	36,896	2,800,476	10,464	753,462	7,596	544,788	225	16,296	57,151	4,114,962
1880	35,845	2,398,865	13,135	945,612	7,599	545,014	296	17,010	54,187	3,901,501
1881	39,738	2,144,736	13,188	949,586	8,911	641,628	299	21,546	52,186	3,757,446
1882	33,228	2,421,276	9,382	675,504	11,984	862,894	322	23,184	54,911	3,82,848
1883	27,076	2,079,688	23,863	1,718,180	729	52,524	325	23,403	52,883	3,873,835
1884	30,240	2,276,088	22,543	1,623,128	8,908	641,079	491	35,576	62,177	4,575,866
1885	30,867	1,566,298	32,725	1,570,716	3,730	179,062	338	16,296	67,758	3,362,362
1886	17,568	862,821	27,063	1,269,042	749	35,970	387	18,594	45,767	2,246,427
Total	308,467	21,037,646	178,878	11,444,481	52,463	3,669,979	2,968	198,569	537,801	36,350,705
First 8 months of 1887 ..	12,713	610,224	51,653	2,479,632	1,327	63,696	.....	.....	65,699	3,153,552

Statement showing quantities and value of sugar exported for ten years—Cont'd.

RECAPITULATION.

Countries.	Quantity.	Value.
	<i>Hogsheads.</i>	
Great Britain.....	308,487	\$21,087,646
United States.....	178,878½	11,444,481
British North American provinces.....	58,463	3,669,979
Bermuda, etc.....	2,998½	198,599
Exports for 10 years.....	587,801½	36,350,706

L. G. REED,
Consul.

UNITED STATES CONSULATE,
Barbadoes, September 1, 1887.

BERMUDA.

Imports of sugar into Bermuda during the year 1886.

[Duty 5 per cent. ad valorem.]

Countries whence imported.	Quantity.	Value.
	<i>Pounds.</i>	
United Kingdom.....	4,500	\$238.46
United States.....	895,882	14,080.12
Barbadoes.....	1,085,446	23,067.21
Demerara.....	116,144	3,406.53
Jamaica.....	3,528	150.86
Antigua.....	46,596	1,390.00
Total.....	1,252,096	43,213.20

No sugar is produced in nor exported from this colony.

CHAS. M. ALLEN,
Consul.

UNITED STATES CONSULATE,
Bermuda, August 9, 1887.

JAMAICA.

REPORT OF CONSUL BEYLARD.

Exports and production.—The exports of sugar from Jamaica during each of the past five years were as follows:

	<i>Pounds.</i>
1882*.....	77,899,280
1883.....	68,954,256
1884.....	62,554,576
1885.....	55,968,304
1886.....	36,871,072

There are no means of arriving at the local consumption, but it may be estimated at 30,800,000 pounds. The average production then, may, therefore, be placed at 91,821,620 pounds.

* Quantities in this report reduced from cwts. to pounds, at the rate of 112 pounds to the cwt., in the Department.

Taxes.—All land is liable to the quit-rent of 2 cents an acre, and a tax of 6 cents per acre is imposed on lands under cane cultivation.

Duties.—The export duties are \$1.39 on each hogshead of nominal weight of 1,904 pounds.

The import duties are 4 cents per pound on refined sugar, and \$2.43 per 100 pounds on sugar unrefined.

Trade.—The exports of 1886 were distributed in the following proportion: United Kingdom, 17 per cent.; United States, 67 per cent.; Canada, 13 per cent.; other countries, 3 per cent.

LOUIS D. BEYLARD,
Consul.

UNITED STATES CONSULATE,
Kingston, Jamaica, August 10, 1887.

ST. CHRISTOPHER.

REPORT OF COMMERCIAL AGENT DELISLE.

The average crop per annum amounts to 13,000 tons.

There are no local charges or taxes on plantations.

There is an export duty of \$2 per hogshead, payable by shipper.

The import duty on foreign sugar is \$2 per 100 pounds.

Prior to 1883, two-thirds of the sugar crop of this island was shipped to England and the balance to the United States. Since the above-mentioned date, seven-eighths of the crop is shipped to the United States, and the balance to England.

EMILE S. DELISLE,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
St. Christopher, September 13, 1887.

TRINIDAD.

REPORT OF CONSUL SAWYER.

Production.—There are about 70,000 acres of land in 89 principal estates of the island, 45,000 acres being covered with cane fields. The largest estate yielded last year 5,956 hogsheads, and the smallest only 43. The estates average 670 acres. The sugar crop of 1886 was 61,495 hogsheads. These properties are mostly owned in England, having attorneys to manage them here. Many of these estates are encumbered with mortgages, and, unless there is an advance in the price of sugars during the next year, they will have to be abandoned, as are many of the estates of Demerara, Barbadoes, and other islands. The canes planted are named Otaheite, Bourbon, Green-rose-ribbon, Red-giant-scarlet, White-transparent, and Congo. These canes are selected after experimenting with many kinds. Otaheite, from the name of the island in the Pacific whence it was brought, is the best cane for this island. Of a beautiful golden color, of large size and height, it is easily distinguished from the others. It never runs to leaves, nor fails of yielding copiously. I am informed by the planters that the Otaheite cane has ratooned on this island for twenty years, which proves that the soil must have been highly fertilized.

and the cane exactly adapted to the soil and climate where it was planted.

The cultivation of sugar is an expensive undertaking. The land is purchased of the Government at £1 an acre, and a plantation yielding 1,000 hogsheads of sugar requires at least 1,200 acres, as half is used for pasturing the stock and for roads and lanes. But the land is but a small part of the expenditure. Buildings, machinery, horses, mules, horned cattle, carts, harnesses, tools, hogsheads, plants, fertilizers, etc., would require capital of nearly \$90,000.

The St. Augustine estate, yielding 2,300 hogsheads of sugar, has an invested capital of \$200,000. To this must be added 10 per cent. per annum for the interest of the money and depreciation.

There are two kinds of sugar made in Trinidad, the crystallized or vacuum pan, Nos. 1, 2, and 3, and muscovado. The former has not only the advantage of being a high-priced sugar, but the machinery by which it is made is capable of making sugar of molasses.

There are 15 estates now making vacuum pan sugar at a cost of £10 10s. per ton. The invoice-price at present is \$3 for 100 pounds. This sugar is always shipped in bags. The muscovado is still made by the old-fashioned machinery that is in use in the greater part of the plantations of the island. This sugar is being made on some estates at £8, on others at £9, and on others at £9 10s. per hogshead. The sugar is selling here at \$41, or only £8 10s. 10d. per hogshead. It is shipped in hogsheads, tierces, and barrels. There are several reasons for the difference of the cost. Highly enriched land on one estate yields two hogsheads to the acre, while the neglected land of another yields only half as much, the first saving much labor in making the same quantity of sugar. One estate may have a larger proportion of indentured coolies, which is the cheapest labor. One estate may have a better manager and overseers than another. Whatever causes there may be, it is quite likely, I expect, that, unless there is an advance in the prices of sugar, many estates will sooner or later have to be abandoned. As yet, however, they continue to struggle, but I am informed that in some instances they are simply weeding their canes until their maturity next winter, when, unless there is a change in prices, their crops will be abandoned.

These people are hoping and believing that the United States Congress will reduce the duties on sugars next winter, which would benefit the Americans very much, and save the West Indians from ruin.

Taxes.—Per annum: On the land 1s. (24 cents) per acre; each room of the barracks (the house of the coolies) having a valuation of £5 4s.; on every such room of greater valuation than £5, 7½ per cent. on the valuation of the room; on each indentured coolie over ten years of age, £1 (\$4.86).

This latter tax requires an explanation: Each indentured coolie costs the Government £18 when he is landed from Calcutta. The Government pays seven-tenths and the planter three-tenths. The coolie serves five years, during which time the Government taxes the planter his three-tenths by the above £1 per annum and the export duty on the sugars. The coolie's pay is 29 cents per day, free rent and free hospital. The unindentured coolie is a person having served his time of five years, and now hires himself out at task work on a plantation. He usually makes 40 to 50 cents per day.

Of course the indentured coolies are the cheapest laborers. These are distributed among the plantations as they arrive from Calcutta.

More than half are free, unindentured men and less than half are indentured on the estates. Certain estates, where the death roll of their coolies has been above a certain percentage, are allowed no more coolies from the Government.

It is estimated that two-thirds of the cost of sugar is for labor. The attorney receives \$7,000; the manager receives \$1,500; the overseers receives \$800 per annum.

Duties.—Export duties, 96 cents per hogshead; import duties, \$2.40 per 100 pounds.

Exports for 1886.

Whither exported.	Quantities.
	<i>Pounds.</i>
United Kingdom.....	94, 143, 968
British North America.....	1, 844
British West Indies.....	23, 251
United States.....	84, 845, 508
All countries of South America.....	9, 375
Total.....	108, 328, 940

Although the greater part of the high-priced sugars go to England, it is gratifying to notice that more than two-thirds of all the sugars of Trinidad are sent to the United States. Almost all vessels taking these sugars sail from this island to New York; the others to Boston and the Delaware Breakwater, for orders.

Estimate for 1,000 hogsheads of sugar.

1,200 acres of land, at 30s. per acre (\$720).....	\$8, 640
Great building.....	10, 000
Machines, boiler, pans, etc.....	30, 000
Residence for the manager.....	5, 000
Residence for the overseer.....	2, 000
Other buildings.....	2, 000
Horses and mules.....	26, 400
Carts, harness, tools, etc.....	3, 000
Painting.....	600
Hospital and medicine.....	3, 000
Capital invested.....	90, 640
Interest and depreciation, 10 per cent.....	9, 064
Cost of making the muscovado sugar at £9 per hogshead.....	48, 200
Market value of muscovado sugar at Port of Spain per hogshead, \$41.....	41, 000
Loss.....	2, 200
Cost of making the sugar at £8 per ton.....	38, 400
Market value per hogshead, \$41.....	41, 000
Profit, not counting interest and depreciation.....	2, 600
Value of crystallized sugar, at \$3 per 100 pounds, equal to \$60 for 2,000—60 by 1,000.....	60, 000
Cost of making, £10 10s. per 2,000 pounds.....	50, 400
Profit, less interest and depreciation.....	9, 600

UNITED STATES CONSULATE,

Trinidad, August 20, 1887.

MOSES H. SAWYER,

Consul.

TURK'S ISLAND.

REPORT OF CONSUL HANCE.

Product.—No sugar is produced in any portion of this colony.

Duties.—Upon refined sugar there is an import duty of \$2.02 per 100 pounds, and upon muscovado and all other kinds there is an import duty of \$1.01 per 100 pounds.

Trade.—The importation of sugar into this colony within the six months ending June 30, 1887, was as follows:

Whence imported.	Quality.	Quantity.	Value.
		<i>Pounds.</i>	
United States.....	Refined.....	20,636	\$640.23
Do.....	Muscovado, etc.....	3,380	159.04
Trinidad.....	do.....	10,284	251.47
Porto Rico.....	do.....	1,560	63.18
Demerara.....	do.....	2,220	103.98
Jamaica.....	do.....	468	24.82
St. Thomas.....	do.....	1,408	63.04
San Domingo.....	do.....	24,480	955.39
Hayti.....	do.....	84	4.86
Total.....		64,934	2,523.66

JOS. L. HANCE,
Consul.

UNITED STATES CONSULATE,
Turk's Island, W. I., August 6, 1887.

DANISH WEST INDIES.

SANTA CRUZ.

REPORT OF CONSUL TURNER, OF ST. THOMAS.

Soil, climate, etc.—The growth of sugar-cane in the Danish West Indies is confined exclusively to the island of Santa Cruz, neither the island of St. Thomas, which is purely a coaling station and port of call, nor St. John being cultivated in any manner whatsoever except in a very limited degree, and hence not worthy of mention.

Santa Cruz is situated in latitude 19° south and longitude 64° west; has a climate that is unsurpassed, the temperature not varying more than 25 degrees throughout the year, the general range of the thermometer in winter being about 70 degrees and in summer about 84 degrees. The soil is a light, sandy loam, with but little clayey substratum.

Cultivation.—In seeking for information relative to the production of sugar it has been difficult to secure accurate information, for, although each planter keeps a general account of revenues and expenditures, yet it is rarely the case that the expenses attendant upon the cultivation of any one field with a definite number of acres are especially noted and compared with the results obtained from the crop produced on such area. In most cases a general approximate estimate is made as to the cost and production.

Preparatory to a general report upon the subject of this dispatch, early in the present year I prepared a dozen questions upon sugar cultivation, production, etc., which I forwarded to twenty planters, with the request that the replies be given as fully and as explicitly as possible. To those queries I received only four replies, two of which only gave any definite information. From authoritative sources I was informed that the only estates where an exact and specified statement of outlays and production was kept were those under the control of the colonial government, but, upon inquiry, I found that those accounts were not open to public scrutiny, nor could the figures be obtained. I was, however, fortunate enough to have access to the books of an estate on which an effort has been made to arrive at the cost of cultivation and the proceeds of such cultivation. The preparation for a crop and its general cultivation is as follows:

The land is fallow plowed, harrowed, and cleared of all weeds, etc., and, where manure is to be had, generally the field is manured under the bank—that is, the field is scored out by the plow in furrows $4\frac{1}{2}$ feet apart, and the furrow is filled with the manure and afterwards covered in with the plow, when the field is ridged or banked up, after which the new furrow is dug out deeper with the hoe by manual labor, called “haling.” In some cases a subsoil plow is used. The plants are cut from the top of the cane 9 or 10 inches long and are put in from $2\frac{1}{2}$ to 4 feet apart, according to the judgment of the planter. This is considered the best system where time will permit, but, unfortunately, the land is very often just merely ridged or banked over the old cane roots or stools and planted roughly without manure, in which case the manure is applied to the young plants when they are about six months old, or earlier, according to circumstances.

Three yearly crops are generally taken from a field thus prepared, viz, plants, first ratoon, and second ratoon, after which the land is permitted to rest or lie fallow for six or nine months, when it is re-plowed and prepared as above. Sometimes it is plowed and cultivated immediately after the canes are cut off, such a course, however, being a heavy drain upon the soil and known as “forcing.”

The cultivation of the ratoon is as follows: Immediately after the plant crop is taken off, or as soon thereafter as circumstances will permit, the trash, or stubble, is removed from the cane root or stool and kept on the bank. The cane root is molded either with the hoe or, in most cases, with a light molding plow (No. 17). After it has sprouted well and grown over the bank it gets its last molding, and the trash is scattered around the plants. The estate is thus divided into four parts, one-fourth in plants, one-fourth in first ratoons, one-fourth in second ratoons, one-eighth in fallow, and one-eighth kept for getting plants.

The best planting season is in the months of December and January, and most planters finish in February, when the cropping season commences and the grinding of the cane begins. The general yield from the plants is about 3,000 pounds of sugar per acre; from first ratoons, 1,500 pounds, and from second ratoons, 800 to 1,000 pounds.

The want of good agricultural implements is severely felt in the island. The use of foreign manure is almost unknown, but some of the estates near the eastern part of the island have the advantage of getting manure from the various stock farms located thereabout.

The grinding of the cane, as stated, begins about the latter part of February and closes generally late in July or August.

In order to arrive at the cost of cultivation, an estate owner and practical manager of an estate, before becoming a proprietor, went with me carefully through his estate books and accounts and gave me the cost of production on 12 acres of land from the planting of the canes, and the first crop therefrom in 1884, including the first ratoon in 1885, and second ratoon in 1886, the last crop from that plant. The figures are as nearly accurate, I presume, as can be procured in the entire island. I have tabulated the information given, and therefrom it will be found that the cost of the 12 acres for the first crop was \$712.70, and that the value of said crop was \$776.25, or that the cost of cultivation per acre was \$59.40, and the value of the crop per acre was \$64.69, showing but very little margin when the question of taxation is still to be considered. For the first ratoon the cost of cultivation, etc., was \$172.30, and the value of the crop from the same was \$501.90, or the cost per acre was \$14.37, and the value of the crop per acre was \$41.82. For the second ratoon the yield is estimated in the table at 14 hogsheads, or 21,000 pounds, but that piece was not cut last year, but this year yielded 18 hogsheads, so that the 14 hogsheads is a fair estimate of the yield. The cost of production and the value of the crop was the same as the preceding year.

Cost of production and yield on 12 acres of land for the plant crop; also, first ratoon and second ratoon.

Crop.	Cost of production on 12 acres.		Yield on 12 acres and its value.		
	For what purpose expended.	Amount.	Produced on 12 acres.	Price per pound received.	Value.
Plant	Manure	\$270.00	Pounds. 34,500	Cents. 2½	\$776.25
	Plowing	87.50			
	Laborers after the plow	26.00			
	Cost of plants	48.00			
	Labor for planting	5.00			
	Supplying plants	10.00			
	Weeding	26.00			
	Cutting canes and tying up	26.00			
	Transportation to tramway	90.00			
	Transportation to factory	104.00			
	Total	712.70	34,500		776.25
First ratoon ...	Molding and weeding	36.00	21,000	2.39	501.90
	Cutting and tying up canes	18.00			
	Transportation to tramway	55.00			
	Transportation to factory	63.80			
	Total	172.80	21,000		501.90
Second ratoon.	Molding and weeding	36.00	21,000	2.39	501.90
	Cutting and tying up canes	18.00			
	Transportation to tramway	55.00			
	Transportation to factory	63.80			
	Total	172.80	21,000		501.90

The cane grown on this estate is not crushed or ground on the estate, so that the expenses mentioned in the statement referred to do not include cost of running the works necessary to the expression of the cane juice, and consequent reduction of the same to sugar, except by a less amount of sugar returned to the planter from the central

works, as I will explain. There is located in the eastern end of the island a factory under government control, to which the canes on the estate in question are transported by tramway, so that the only expenses which can accurately be taken into consideration are the cost of transportation to the tramway and thence to the factory. For every one hundred pounds of canes carried to the factory six pounds of sugar are returned, the factory being remunerated for the reduction of the canes to sugar by such an amount of sugar as can be produced exceeding six pounds to every hundred pounds of cane. From this it will be seen that though the cost of reducing the cane to sugar may not be given in the table, yet it is indirectly given by the reduced amounts of sugar returned to the planters as yield.

The land referred to was manured only when in plant canes, that is, once in 4 years. Where pen manure was the fertilizer 600 barrels to one acre were used, either plowed into the land or applied when the plant was a suitable height. Where droppings only were used, 125 barrels to the acre were applied, the cost of which was 18 cents per barrel on the estate and applied to the land.

The total number of acres on the estate referred to is 544, of which 225 are cultivated and 285 uncultivated or pasture land. The cultivated land is divided as near as possible into four sections of 56 acres each, one in plant canes, one in first ratoon, one in second ratoon, and one in fallow, one-half of which is allowed to grow up for plant tops. For the year 1886, 175 acres were in cane cultivation, which produced 258½ hogsheads of 1,500 pounds each, giving an average per acre of 2,216 pounds. The entire production and the value of the same from that estate for the year 1886 were as follows:

177 barrels of sugar.....	\$1,281.75
218½ hogsheads of sugar (1,500 pounds each).....	7,967.14
2,267 gallons of molasses.....	235.21
12 puncheons rum (1,308 gallons).....	254.42
Total.....	9,738.52

The expenses for the same period were:

Estate supplies (lumber, nails, paints, etc.).....	\$758.39
Corn-meal.....	300.80
Oil-cake.....	44.00
Manure.....	607.00
Stock.....	85.00
Manager's salary.....	1,200.00
Overseer's salary.....	160.00
Horse tax.....	6.20
Medicine and doctor's fees.....	93.70
Veterinary surgeon.....	19.50
Eleven immigrants, at \$8 each.....	88.00
Taxes.....	321.25
Laborers.....	3,772.00
Miscellaneous.....	178.15
Total.....	7,633.99

The laborers were divided as follows: 40 first-class, 50 second-class, 6 third-class, 11 cartmen, 6 pasture-men (hostlers, etc.), 3 tradesmen (coopers, carpenters, etc.), and 41 day laborers irregularly employed. If, instead of sending cane to the central factory, the mill on the estate had been in operation, the expenses attendant thereupon might

be put down as follows, the figures being taken from the actual accounts for the year 1882, when the crop and its value was as follows:

	Weight.	Value.
	<i>Pounds.</i>	
247½ hogsheads sugar	871,200	\$14,848.34
122 casks rum	81,098	3,243.94
24 puncheons rum	26,730.	1,029.23
Total	478,084	19,121.41

The expenses for running the mill were as follows for one day :

	No.	Expenses.
Engine driver or engineer.....	1	\$0.40
Boiler men	3	.87
Still-house men	2	.54
Boys.....	2	.38
Firemen.....	2	.66
Dry megass carts.....	2	.54
Green megass cart.....	1	.27
Green megass packers	2	.54
Men and women for throwing cane to the mill.....	5	1.35
Mill feeder.....	1	.32
Cane carts.....	8	2.16
Men for potting sugar.....	2	.40
Total		8.43

The crop of 1882 was taken off in 69 days, in which the cane was ground on the estate and not at the central factory. This crop would have made 318 hogsheads of 1,500 pounds each, while it took under the arrangement with the factory 120 days to take off the crop of 1886, which made only 258 of 1,500 each.

Entire production of sugar and yield per acre on each of three areas of land, as well as the general average for the aggregate area for the years 1884, 1885, 1886.

Class of crop.	1884.			1885.			1886.		
	Acres.	Number hogsheads, 1,500 pounds each.	Number pounds per acre.	Acres.	Number hogsheads, 1,500 pounds each.	Number pounds per acre.	Acres.	Number hogsheads, 1,500 pounds each.	Number pounds per acre.
Plant canes.....	66	127	2,896	63	75	1,796	54	101½	2,819
First ratoon	67	76	1,702	66	68	1,545	61	84	2,127
Second ratoon.....	68	51	1,125	46	32	1,044	60	70½	1,702
Total	201	254	1,896	175	175	1,500	175	258½	2,216

Rain-fall.—The rain-fall on the estate in question for 1886 was 32 lines, or 4 inches. The statement inclosed gives the rain-fall for the years 1885, 1886, 1887. The average rain-fall throughout the island, by government report, was for the year ended March 31, 1885, 27½ lines, and for the same period ended 34½ lines, 8 lines being equal to 1 inch.

To value the estate I have referred to above by the acre would be a difficult matter, as property is not sold in that manner, but

always the estate entire. In April, 1881, the price paid for it was \$29,000, and it is considered to be worth about the same at present. The rate of interest that prevails is 5 per cent.

Average rain-fall, in lines, on estate mentioned, for each month and year, for each year ended 1885, 1886, 1887, 8 lines being equal to 1 inch.

Month.	1885.	1886.	1887.
	<i>Lines.</i>	<i>Lines.</i>	<i>Lines.</i>
January	6.75	27.50	9.00
February	17.75	27.25	4.75
March	8.00	10.25	1.00
April	48.25	77.00	1.50
May	10.75	5.25	40.25
June	5.25	25.25	50.75
July	14.75	15.50	18.50
August	18.75	22.00	51.25
September	14.75	34.00	.....
October	114.25	49.00	.....
November	44.50	68.00	.....
December	53.25	12.00	.....
General average	27.67	23.00	22.87

Labor.—Laborers are divided into three classes, the first class being paid 20 cents per diem, second class 12 cents, and the third class 8 cents; the laborers furnishing their own food. Each laborer is allowed a room or house 10 by 12 feet and 40 feet square of land for cultivation of vegetables, but although this is the general contract, yet frequently they are allowed as much ground for such a purpose as they can cultivate. Women and men alike, irrespective of sex, are first, second, and third class laborers. Medical attendance is furnished by the planter at his own expense. The working year contains 260 days, and the working days of each week are from Monday to Friday, inclusive, 5 days per week, and the working hours are 9 daily, beginning at 7 o' clock a. m., and ceasing at sunset, with 2 hours' allowance for dinner. For extra work on demand, generally when the cane mill is in operation during crop time, 7 cents extra per day are allowed. Wages are payable at the end of each week.

Taxes.—The taxes upon the estates are of two classes, viz, upon land in sugar cultivation and upon land in other cultivation, including pasturage (except land that is useless), in both of which cases the tax is upon area and not upon value. For taxes upon land in sugar cultivation the following are the classes and rate average per acre:

	Cents.
Cultivation tax	36
New tax	16
Immigration tax	10
Cavalry and artillery tax	19
Total	81

The cultivation tax is apportioned on all estates in proportion to the sugar crop of each estate in the last year, but in such a manner, however, that no estate be assessed a higher tax than 64 cents per acre. The immigration tax was instituted by a royal ordinance of September 13, 1885, by which the land treasury of the island was empowered to raise loans to the amount of \$60,000 to defray the expenses connected with the immigration of laborers, and to defray the interest on this loan and to provide a sinking fund the tax of 10 cents per acre was imposed.

The taxes on land in other cultivation, which includes pastures and all land except that which is entirely useless, are as follows :

	Cents.
Ground tax, per acre.....	18½
Immigration tax, per acre.....	10
Total.....	28½

There is an absolute tax, in addition to the above, paid by owners of estates who live in foreign countries, Denmark excepted. It is estimated upon the value of the sugar production on each estate, determined by the custom-house valuation in accordance with quotations in New York and London, 10 per cent. being taken from such valuation as a basis, and then 5 per cent. on the remaining amount for the absentee tax.

Trade.—The countries of shipment are given in the subjoined table for two successive years, the official report for the third year, ended March 31, 1887, not having been completed. From the consular records, however, I obtained the amount exported to the United States. It will be seen that for the year ended March 31, 1887, the official fiscal year, 2,886,418 pounds more sugar were sent to the United States than for the year ended March 31, 1886. I have the official statement given me, that for the year ended August 31, 1887, 16,004,660 pounds sugar were exported to the United States, nearly the entire crop. The number of acres in cultivation has not changed materially in the last twelve years as the inclosed table will show. In fact, in the last twelve years a less number of acres by a thousand was cultivated than in 1865-'66, but the figures show that with that much less area over 5,000,000 pounds more sugar was made in 1885-'86 than in 1865-'66. The reason for the increased yield with the same or less acreage is due to improved facilities in the manufacture of the sugar as well as closer management of the estates :

Export of sugar and the value thereof from Santa Cruz to various countries for the years ended March 31, 1885-1886 and to the United States only for the year ended March 31, 1887.

Years.	Denmark.	Europe.	United States.	St. Thomas.	Total quantity.	Total value.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	
1884-'85	3,991,670	11,961,958	7,968,120	558,122	24,514,870	\$644,880.84
1885-'86	2,971,058	6,523,396	7,739,727	325,868	17,560,041	449,136.50
1886-'87	(*)	(*)	10,626,145	(*)	.....	311,568.55

* No official report made yet.

Duties.—The export tax is 5 per cent. on the value of the sugar, now fixed by the custom-house authorities at 2½ cents per pound. The import duty on loaf-sugar is 12 cents per pound.

Production.—There is in the island, as I have stated in the beginning of this report, a central factory. There are stations throughout the island for grinding the canes from those estates which have contracts with the central factory, and the cane juice is carried by means of pipes for several miles to a reservoir at the central factory. There the liquid is impregnated with lime to prevent acidity. Then when the liquid is being reduced to sugar the lime is extracted by chemicals. I am unable to give any exact information as to the man-

agement of this factory other than such as I subjoin, which is a reply to a letter of inquiry addressed the superintendent in charge, as no information is given out for publication.

The central factory's campaign for 1886 lasted from the 8th of March to the 14th of July. During this time the head station worked uninterruptedly day and night, with the exception of a few days at Easter and Whitsuntide, ninety-six days and twelve hours. At the factory's five grinding stations there were received 98,958,310 pounds of canes, Danish weight, 100 pounds Danish being equal to 112 English pounds.

The sugar produced was as follows: First product sugar, 6,486,180 pounds; second, 936,972 pounds; third, 361,080 pounds; total, 7,784,232 pounds, or 5,190 hogsheads, of 1,500 pounds each.

The first-product sugar polarized 97; second, 92.8; third, 85.8.

One ton of cane yielded: 146 pounds first-product sugar (160 strikes); 21 pounds second (180 strikes); 8 pounds third (55 strikes).

The machinery in use is European, and the power is steam.

The above is all the exact information I can obtain from the factory. Before closing this report I desire to state that the officials have been uniformly courteous to me, giving me such information as lay in their power.

Acres of cultivated, uncultivated, and useless lands on all the sugar estates in the island of Santa Cruz, for the years ended March 31, 1866, 1876, 1886, 1887, with total sugar production for each year.

Year.	Land in sugar culti- vation.	Land other- wise culti- vated, in- cluding pastures, etc.	Useless land.	Total.	Total yield.
	Acres.	Acres.	Acres.	Acres.	Pounds.
1865-'66	17,602	29,791	3,777	51,170	12,352,300
1875-'76	16,836	30,660	3,673	51,169	15,865,630
1885-'86	16,507	31,325	3,946	51,778	17,925,903
1886-'87	16,547	29,643	4,969	51,159	.....

The following statement shows the production of sugar on one of the best estates in the island, where the latest improved machinery is in use:

Land in cultivation:

Plants	acres..	280
First ratoons	do....	302
Second ratoons	do....	108
Canes ground (net).....	pounds..	18,094,440

Crop:

Vacuum-pan sugar.....	pounds..	1,245,220
Molasses	gallons..	9,100
Rum	do....	12,650

MORTIMER A. TURNER,
Consul.

UNITED STATES CONSULATE,
St. Thomas, W. I., September 16, 1887.

FRENCH WEST INDIES.

GUADELOUPE.

REPORT OF CONSUL BARTLETT.*

Production.—The product of sugar in the French colony of Guadeloupe for the year ended December 31, 1886, was 88,297,307 pounds. This year it will be very much larger, for up to the 1st of August there have been 114,530,566 pounds exported, and it is thought by those who appear to be well informed that the product this year will exceed 132,300,000 pounds.

Taxes.—There are no direct local charges on plantations in the shape of taxes.

Duties.—At the last regular session of the general council the export duty on sugar was reduced, on an average, from 3 to 2 francs per 100 kilograms; varying a few centimes, more or less, according to the commune where the sugar is produced. This export duty is in lieu of a direct tax on the plantations, and the greater portion of the money collected is returned to the communes, where the sugar is produced.

The importation of foreign sugar is prohibited.

Trade.—For the year ended December 31, 1886, the exports were—

To—	Pounds.
France	74,360,758
French colonies	45,423
United States	5,936,801
Other countries	519,157
Consumed in the colony	7,422,692
Total	88,284,831

This year, up to the 1st of August, there were exported to—

	Pounds.
France	108,695,475
French colonies	27,788
United States	5,807,808
Total	114,530,566

CHARLES BARTLETT,
Consul.

UNITED STATES CONSULATE,
Guadeloupe, August 20, 1887.

MARTINIQUE.

REPORT OF CONSUL GARESCHÉ.

Production.—The total sugar production of the island of Martinique in the year 1886 amounted to 29,724 tons. Of this quantity 24,130 tons were usine sugar and 5,592 tons were plantation sugar.

The extent of the production of sugar has been largely reduced of late years by the increased manufacture of the juice of the cane into molasses, the latter being afterwards converted by process of distillation into rum.

Taxes.—Sugar plantations are not subjected to any local charges or taxes of any description.

*The quantities in this report were reduced, in the Department, from kilograms to pounds.

Duties.—As regards export duties, all varieties of sugars have to pay the regular charge, fixed at one franc per 100 kilograms (220 pounds) in 1886, but which has this year, 1887, been reduced to one-half franc per 100 kilograms.

The importation of foreign sugars was prohibited by a decree dated March 31, 1887. French sugar pays an entry duty of 16.01 francs per 100 kilograms.

Trade.—Refined sugar, the only kind imported into the colony, has been almost exclusively shipped from French ports. The amount received from foreign countries is of no importance. In regard to exportation, all white centrifugal sugars go to France. In 1886 only 916 tons were sent to Cadiz and 25 tons to the Lesser Antilles. Of the plantation sugars, 4,863 tons were shipped to the United States and 77 tons to Nova Scotia.

WM. A. GARESCHÉ,
Consul.

UNITED STATES CONSULATE,
Martinique, September 6, 1887.

HAYTI.

CAPE HAYTIEN.

REPORT OF CONSUL GOUTIER.

Sugar is not produced in this consular district; that consumed, principally crushed, comes from the United States.

The imports during the last twelve years were as follows :

White sugar imported from the United States into Cape Haytien during the twelve years ending December 31, 1886.

Years.	Quantities.	Years.	Quantities.
	<i>Pounds.</i>		<i>Pounds.</i>
1875.....	145, 148	1882.....	178, 998
1876.....	196, 212	1883.....	90, 068
1877.....	288, 286	1884.....	147, 738
1878.....	111, 645	1885.....	143, 947
1879.....	145, 262	1886.....	167, 196
1880.....	155, 435		
1881.....	222, 957	Total.....	1, 987, 856

The import duties on every 100 pounds of white sugar are computed as follows :

Import duties.....	\$3. 00
Wharfage.....	. 12
Weighing.....	. 05
	8. 17
Additional 50 per cent.....	1. 59
Additional 33½ per cent.....	1. 46
Statistics.....	. 01
Total.....	5. 88

STANISLAUS GOUTIER,
Consul.
UNITED STATES CONSULATE,
Cape Haytien, August 10, 1887.

PORT AU PRINCE.

REPORT OF CONSUL-GENERAL THOMPSON.

Production.—The production of sugar in this portion of the island of San Domingo is very limited. Nearly all of the cane is used in making sirup for home consumption; it is taking the place of sugar. But the small amount of crude sugar that is produced is mostly shipped from this city. In the fiscal year 1882-'83 there were 2,161 pounds shipped from Aux Cayes.

Taxes.—There are no local charges on plantations. No taxes.

Duties.—No export duty on sugar. The import duty on foreign sugars is \$6.90 per 100 pounds, French weight.

Trade.—The extent of sugar trade commencing with the fiscal year ending June 30, 1885, is fully exhibited in the following table for this district :

Fiscal years.	To United States.	To Europe.	Total.	Value of export to United States.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	
1884-'85	198,261	87,068	285,314	\$7,059
1885-'86	86,088	289,373	375,465	2,940
July 1 to December 31, 1886	15,400	105,005	120,405	815
1886-'87	85,874			1,827

This Government, in its effort to encourage the production of sugar, permits the shipper of crude sugar to import free of duty refined sugar to the extent of 70 per cent. of the amount exported by him.

JOHN E. W. THOMPSON.

Consul-General.

UNITED STATES CONSULATE-GENERAL,
Port au Prince, August 16, 1887.

SAN DOMINGO.

REPORT OF CONSUL ASTWOOD.

Production.—The production of sugar in this consular district, comprising San Domingo, Macoris, and Azua, was as follows for the year 1886:

Districts.	Quantity.	Value.
	<i>Pounds.</i>	
San Domingo	18,365,698	\$680,308.74
Macoris	14,441,518	428,627.89
Azua	2,690,509	100,025.31
Total	35,497,715	1,208,961.94

Local charges.—There are no local charges of any kind whatever on the plantations.

Duties.—There is an export duty of one-fourth cent per pound, Mexican currency, on all sugars manufactured, irrespective of quality or grade, with the exception of concrete or melado, manufactured by one sugar estate only, which pays a special duty, under concession, of 12½ cents, Mexican, per 100 pounds.

The import duty on foreign sugars is as follows: Muscovado or brown sugar, \$2.12 per 100 pounds; crushed sugar in barrels or boxes, \$3.18 per 100 pounds; refined sugar, \$5.33 per 100 pounds; loaf-sugar, \$6.36 per 100 pounds; sugar in candies, \$15.90 per 100 pounds.

Exports.—The sugar trade of this district is almost exclusive with the United States; the total amount shipped to foreign countries during the year 1886 did not exceed 38,000,000 pounds, of which 35,497,715 were shipped to the United States; the balance, the product of a Frenchman's sugar estate, being shipped direct to Europe.

H. C. C. ASTWOOD,
Consul.

UNITED STATES CONSULATE,
San Domingo, August 19, 1887.

PUERTO PLATA.

REPORT OF CONSUL SIMPSON.

Production.—The production of sugar in this district during the past season (ending September 30) amounted to 3,115,118 pounds, as against 2,424,610 pounds for same period, 1886; a gain of 695,008 pounds.

Taxes.—There are no local charges on plantations.

Duties.—Export duties are collected at the rate of 25 cents per quintal on centrifugal or muscovado, and 19½ cents on concrete.

The import duties (general and municipal) on foreign sugars amount to \$3.16 per quintal on centrifugal, \$2.91 on muscovado and \$3.24 on cut-loaf.

Trade.—The total production is shipped to the United States.

THOS. SIMPSON,
Consul.

UNITED STATES CONSULATE,
Puerto Plata, September 30, 1887.

SPANISH WEST INDIES.

CUBA.

REPORT OF CONSUL-GENERAL WILLIAMS.*

I inclose tables showing the exports of sugar-cane products shipped from the various ports of this island to the United States and to other countries during the first quarter of the present year, with the following exhibit of the percentage sent to each of these two destinations, viz:

Port from whence shipped.	To the United States.	To other countries.	Port from whence shipped.	To the United States.	To other countries.
	<i>Per cent.</i>	<i>Per cent.</i>		<i>Per cent.</i>	<i>Per cent.</i>
Havana	70½	29½	Guantanamo	100	.....
Mantanzas	99½	½	Santiago de Cuba	88	18
Cardenas	100	.....	Manzanillo	100	.....
Sagua la Grande	100	.....	Zaza	100	.....
Calbarien	100	.....	Trinidad	100	.....
Nuevitas	99	1	Cienfuegos	95½	4½
Gibara	100	.....		

* No report having been received from Consul-General Williams in answer to the sugar circular, this report is republished from No. 69 of the regular consular series, issued for the month of October, 1886.

In forming these tables I have followed the usage here, and adopted the hogshead of sugar of 1,500 pounds net weight as the unit of weight, reducing all other kinds of packages thereto, according to the scales below:

Scale for sugar.—1 hogshead sugar = 1,500 pounds, net weight; 1 bag sugar = 300 pounds, net weight; 5 bags sugar = 1,500 pounds = 1 hogshead; 1 box sugar = 400 pounds, net weight; $8\frac{1}{2}$ boxes sugar = 1,500 pounds = 1 hogshead.

Scale for molasses.—140 gallons = 1 shipping hogshead; 70 gallons = 1 shipping tierce; 85 gallons = 1 shipping barrel; 1 gallon = 10 pounds, and 1 gallon = $\frac{1}{10}$ parts of sugar; 7 pounds sugar = 1 gallon of molasses.

Therefore, 1 hogshead molasses = 980 pounds of sugar.

Scale for rum.—1 pipe = $1\frac{1}{4}$ hogsheads molasses.

The accompanying general statement, wherein are recapitulated all the tables, shows that the products of the sugar-cane crop of Cuba exported during the quarter under consideration have found their consuming markets abroad in the proportion of 93.55 per cent. in the United States, and only 6.45 per cent. in other countries.

No sugar-cane products have been exported from the important port of Baracoa during the first quarter, the shipments from there having been comprised exclusively of fruits, all of which, or say 100 per cent., went to the United States, and nothing to other countries, as shown by the inclosed table of the exports from Baracoa during the first quarter of the present year.

RAMON O. WILLIAMS,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Havana, June 25, 1886.

Exports during the quarter ending March 31, 1886.

[Hogshead of sugar of 1,500 pounds weight, net, as unit of measure.]

Ports of shipment.	To the United States.		To other countries.	
	Sugar.	Per cent.	Sugar.	Per cent.
	<i>Hogsheads.</i>		<i>Hogsheads.</i>	
Havana	40,714	.70 $\frac{1}{2}$	17,023	.29 $\frac{1}{2}$
Matanzas	60,869	.99 $\frac{1}{2}$	70	.00 $\frac{1}{2}$
Cardenas	71,207	100		
Sagua la Grande	81,873	100		
Calbarien	16,344	100		
Nuevitas	2,727	.99	23	.01
Gibara	1,844	100		
Guantanamo	12,271	100		
Santiago de Cuba	4,311	.62	943	.18
Manzanillo	3,917	100		
Zaza	700	100		
Trinidad	2,504	100		
Cienfuegos	42,427	.95 $\frac{1}{2}$	1,994	.04 $\frac{1}{2}$
Total	291,198		20,023	

To the United States	93.55
To other countries	6.45
Total	100.00

Recapitulation of statements of exports of the sugar-cane products of the Island of Cuba to the United States and to other countries, during the quarter ended March 31, 1886.

Ports of shipment.	To the United States.						
	Sugar.				Molasses.		
	Hhd.	Boxes.	Tierces.	Bags.	Hhd.	Tierces.	Pipes.
Havana	4,482	74		146,664	10,540		
Matanzas	10,552			170,818	28,542	2,302	73
Cardenas	37,556			46,094	35,483	3,829	
Sagua la Grande	16,585		1	44,327	8,139	737	
Caibarien	4,672			56,902		446	
Nuevitas	131			12,737	90		
Gibara	807			7,141	167		
Santiago de Cuba	73		8	21,098			
Guantanamo	635			58,179			
Manzanillo				15,399	1,271	7	80
Trinidad	1,750		150	2,299		52	
Cienfuegos	15,233		436	125,958	2,462	300	164
Zaza				3,500			185
Baracoa*							
Total	91,906	74	615	711,136	82,508	7,227	267

Ports of shipment.	To the United States.				To other countries.					
	Melado.		Rum.		Sugar.			Molasses.		
	Hhd.	Tierces.	Barrels.	Barrels.	Hhd.	Bags.	Boxes.	Hhd.	Tierces.	Pipes.
Havana					1,817	41,908	12,061	109		3,611
Matanzas						351	1			
Cardenas	636	20								
Sagua la Grande										
Caibarien						27		17		
Nuevitas					6					
Gibara										
Santiago de Cuba				50		1,680				772
Guantanamo										
Manzanillo										
Trinidad										
Cienfuegos					14	6,098	7	671	196	111
Zaza										266
Baracoa*										
Total	636	20		50	1,837	49,970	12,069	797	196	4,639

* No exports of sugar-cane products.

	Per cent.
To the United States	93.55
To other countries	6.45
Total	100

SUGAR CROP OF CUBA, 1886-'87.

[From the Pais, Havana, July 8, 1886.*]

* * * * *

The Situation, of Sagua, says, that upon information obtained from intelligent and experienced planters the sugar crop of 1886-'87 in that district will show a diminution of not less than a third part compared with the crop just gathered of 1885-'86.

This will be due not only to there not having remained over any fields of standing cane, as last year, but also to the drought that has lasted for forty-five days, stopping the growth of the ratoon and killing the spring plantings.

There is, besides, another cause why the coming crop must diminish. This is the abandonment in which a great number of sugar plantations are left on account of the owners being without cash or credit to pay for the weeding and cultivation of their fields. On the other hand, the perspective of prices and the increased exactions imposed by the Government this year have discouraged even the richest and the most enterprising of the planters, for which reason the autumn plantings were relatively so small, whilst those of spring amount almost to nothing.

CARDENAS.

REPORT OF COMMERCIAL AGENT CHURCHILL.

Production.—Total production of sugar in this jurisdiction for the year 1887 was 134,593 hogsheads of 1,500 pounds each, valued at \$37.50 per hogshead.

Charges.—Government tax on each hogshead of sugar, \$1.50; freight of empty hogsheads to the sugar estate, 25 cents; cost of empty hogsheads, \$4; freight to Cardenas per railroad, \$2.50; storage in Cardenas, 50 cents; one-half per cent. brokerage on sale, 15 cents; total, \$8.90

Duties.—Export duty, *\$1.50; cost of hogshead, \$5.50; wharfage, 25 cents; launching, 50 cents; one-half per cent. brokerage, 15 cents; shipping commission $2\frac{1}{2}$ per cent., 94 cents; total, \$8.84.

Import of foreign sugars prohibited.

Trade.—Of the product of this crop 98 per cent. was exported to the United States.

JAMES M. CHURCHILL,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Cardenas, Cuba, July 29, 1887.

CIENFUEGOS, TRINIDAD DE CUBA, AND ZAZA.

REPORT OF CONSUL EHNINGER.

The following statement is calculated from the data in the possession of this consulate and of the agencies at Trinidad de Cuba and Zaza, supplemented by information obtained from trustworthy sources:

Production.—The total crop of 1886-'87, as calculated from the aforesaid data, for this district is 84,942 tons. This embraces the sugar produced in this district which has been shipped from Cienfuegos, Trinidad, and Zaza, the stock on hand awaiting shipment on July 31, 1887, and the amount reserved for local consumption.

I would remark, however, that over 9,000 tons have been withdrawn from the natural zone of this port and shipped by way of Sagua la Grande, owing to the high rates of transportation on the local railroad line and the superior inducements offered by the Sagua line. This addition would have given to this consular district 94,000 tons which properly belonged to it.

* The export duty has been abolished since this dispatch was written. See report of Consul Conroy, San Juan, Porto Rico.

Taxes.—There is a Government tax of 2 per cent. on the net proceeds of each plantation, and a municipal tax of from 4 to 6 per cent. likewise assessed on net production.

Duties.—The export duties, which were undergoing a gradual reduction, have been entirely abolished since the first of August of this year.

The importation of foreign sugar into the Island of Cuba is prohibited by law.

Trade.—Extent of sugar trade with the countries of shipment is as follows: To the United States, 69,777 tons; to Spain and Great Britain, 6,967 tons; total, 76,744 tons, being in the proportion of 90.79 per cent. to the United States and 9.21 per cent. to other countries.

The stock on hand, for shipment, on July 31, was 6,770 tons; reserved for local consumption, 1,428 tons; total, as before stated, 84,942 tons.

HENRY A. EHNINGER,
Consul.

UNITED STATES CONSULATE,
Cienfuegos, August 3, 1887.

MATANZAS.

REPORT OF VICE-CONSUL HEIDEGGER.

Production.—It is impossible to get at the correct statistics of the production of sugar in this district, as a large quantity of same is forwarded direct from the sugar estates, either by rail or sea, to the ports of Havana and Cardenas for shipment; nevertheless I am at present trying to obtain a list of all the sugar estates of this district and their production last year. I shall have the pleasure to forward same as soon as all the necessary data will be to hand. The best way to get an idea of the production is to refer to the statement of exports from this port, which will be found under the head of "Trade."

Taxes.—Sugar estates pay taxes as follows: To the general (state) government 2 per cent. on the net income of the estate, and 16 per cent. extra on the amount of the above 2 per cent. This tax of 16 per cent., though collected by the state government, is mentioned in the receipts of the government as municipal tax, and is said to be handed over to the municipality of the respective districts.

To the municipal government 6 per cent. on the net income, calculated as above, and 2 per cent. extra of the amount of the above 6 per cent. Whenever a deficit results to the municipality (and such is generally the case), this deficit is levied in equal proportionate parts among the sugar estates of said municipality.

To arrive at the net income of a sugar estate, the average crops of one year for the past five years is taken into account, and after deducting 60 per cent. from the given amount for expenses of production, the sum remaining is considered the net income of the estate per year. The last valuations of the sugar estates, made some two or three years ago, are now entirely too high, considering the heavy decline that sugar has experienced lately; in fact, there are very few sugar estates at present in the island which can be considered as having really a net income.

Duties.—Export duties on sugar, molasses, and rum have been abolished since the 1st of August. The import of foreign sugars is prohibited in this country.

Trade.—The exports from this port for the past four years and seven months, say from January 1, 1883, to July 31, 1887, were as follows:

Years.	To the United States.	To British North America.	To Great Britain.	To Spain.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
1883.....	51,574	1,250	1,236	457
1884.....	82,345	2,027	53	896
1885.....	85,519	138	6,001	1,965
1886.....	100,866	2,768	.....	866
Up to July 31, 1887.....	74,457	286	2,048	661
Total.....	422,159	7,176	9,458	4,815

Total exports to all countries for four years and seven months, 443,608 tons. The distribution of the trade is as follows: 95.16 per cent. to the United States; 1.62 per cent. to the British provinces; 2.13 per cent. to Great Britain, and 1.09 per cent. to Spain.

Under this heading I have also to bring under notice molasses, which does not find any other outlet than the United States. The exports of molasses for the same time as above amounted to the large quantity of 242,759 hogsheads, which, at the low average of 140 net gallons per hogshead, is nearly 34,000,000 gallons. The molasses refiners of the United States calculate that a gallon of molasses testing 50°, which is the average test, produces an average of about 4½ pounds of sugar, making the production of molasses-sugars from this district 69,517 tons, or an average of 15,168 tons of sugar per year derived from this source.

The export of molasses from this port to the United States from January 1, 1883, to July 31, 1887, was as follows per year:

	Hogsheads.
1883.....	50,441
1884.....	47,800
1885.....	40,195
1886.....	58,570
1887 (up to July 31).....	45,753
Total.....	242,759

Each hogshead containing about 140 gallons net, the whole is equal to 33,986,260 gallons, or 7,415,184 gallons per year.

HENRY HEIDEGGER,
Vice-Consul.

UNITED STATES CONSULATE,
Matanzas, August 11, 1887.

SAGUA LA GRANDE.

REPORT OF COMMERCIAL AGENT MULLEN.

Production.—The production of sugar at this port is calculated at about 78,440,000 tons, American; about 12,000 tons are received here from other ports; making a total of 90,440 tons.

Charges.—The municipal and state charges are calculated at about 9 per cent. on probable product.

Duties.—The export duties have been removed since August 1, 1887. There are no imports of sugar at this port.

Trade.—The sugar trade is almost entirely with the United States, the exports to Europe being very insignificant.

About 24,000 hogsheads of molasses, of 150 Spanish gallons per hogshead, are also produced annually.

D. M. MULLEN,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Sagua la Grande, August 2, 1887.

SANTIAGO DE CUBA.

REPORT OF CONSUL REIMER.

Production.—The production of sugar, taking the crop just finished, in my consular district was as follows:

Districts.	Quantity.		Equivalent in tons.
	Hogsheads.	Bags.	
Santiago.....	894	71,352	11,862
Guantanamo.....	2,064	205,508	32,490
Manzanillo.....	395	83,186	13,186
Santa Cruz.....			
Total.....	3,253	360,130	57,038

Local charges.—Government tax on net earnings 2 per cent., usually calculated on five years' average; municipal tax varies and can go up to 6 per cent., usually calculated in same way as Government tax. As an example, the Guantanamo estates, which produced 32,490 tons of sugar, paid: State taxes, \$11,022.49; municipal, \$30,689.25; total, \$41,711.74 (Spanish). In other words, an estate making, say, 1,000 hogsheads per year, or 5,000 in five years, considering the average market price in Cuba for the last five years, say 25 per cent., or 1,250 hogsheads, and on these, calculated on this average market price, the government tax of 2 per cent. is imposed. The same with municipal tax, only the rate per cent. is fixed according to the needs and necessities of the municipality in which the estate is situated. In order to further the sugar industry of the island of Cuba, sugar estates pay no taxes, either government or municipal, for the first five years of their existence.

Duties.—Export duty abolished about August 1, 1887. It then amounted to about 14 cents per 100 pounds. Machinery imported into this island for the use of making sugar pays 1 per cent. on invoice value.

The importation of any raw sugar is prohibited, with the sole exception in favor of Porto Rico, which pays 82½ cents per 100 kilograms.

Trade.—I may say that all the sugar produced goes to the United States. For this crop it is impossible to calculate the exact amount exported, as about 30,000 bags, more or less, are still held in store here by some of the large houses with the hope of a rise in prices. In giving the amount 30,000 bags, I calculate Guantanamo and this place.

PRESENT CONDITION OF THE SUGAR INDUSTRY.

In order to give a better idea of the chief industry of this consular district I will endeavor to show the cause which led to the present unavoidable position of the Cuban sugar planter. Nature has always been very prodigal with him. The soil has yielded enormous results. I have seen cane fields that have yielded cane for twenty-five years with no more than some superficial plowing. Hands to plant his cane and work his mill were plentiful and the prices his sugar brought in the market left a handsome profit. When the decline came the Cuban planter was wholly unprepared for it. He could not make sugar at the lower prices, having no money wherewith to buy new machinery, and had to mortgage his lands and estate to make his crop, hoping for better times. These better times never came, and each year found him deeper in the mire; one estate after the other was abandoned and those planters that struggled on, and are struggling on, can hardly be said to own the estates, but had to give them into the hands of the capitalists that were compelled to advance money to save the amount already invested, and those capitalists have gradually taken charge of the more desirable estates.

Then the era of retrenchment came. Capitalists who gained possession of the estates in the manner above described looked about them for means of getting more sugar out of their cane, reducing working expenses, and, in fact, trying to make sugar to sell with a profit, or at least not with a loss, at present prices.

In this way large estates were operated whose machinery crushed the cane and made the sugar for all the surrounding planters who could not run their own mills.

To-day there are here, and in Guantanamo and Manzanillo, estates held by strong capitalists which can make sugar at \$2.50 per 100 pounds, thus leaving a small profit. The cost of transporting the sugar to the sea-board forms a very important factor in the financial success of a sugar estate. Thus the estates in undesirable localities, away from transporting facilities, are gradually being abandoned and new estates are formed in Guantanamo and along this south coast, from Cape Cruz westward, which are within easy distance of the port from which the sugar produced can be shipped. Also, all along the north coast of this province there are any number of navigable and safe bays which can be utilized for ports, and on their shores are thousands of acres of virgin soil adapted to the cultivation of sugar. Soon the necessity of utilizing these coast tracts of land will be felt, and I am convinced that capital investing to-day in such territory, utilizing the latest inventions in the way of sugar-making machinery, running the estates on business and economical principles, will find sugar making most profitable.

As it is now, the sugar estates, with few exceptions, represent more capital than their actual value to-day.

Machinery.—Speaking of machinery, I regret to say that to my knowledge, in this province, there is not a new sugar mill of American make; all are French and English. Machinery imported into this island for the making of sugar pays a duty of only 1 per cent.

Labor.—Since the abolition of slavery the labor question in this consular district has become more serious every year.

The Cuban workingman finds that he can settle where he pleases, paying a small tax to the Government. His hut he builds in a day, and prodigal nature satisfies his wants, which are few, without very much

exertion on his part. To clothe himself only a few dollars a year are necessary, and so the need of doing work becomes very small. He gets for a day's work from 80 cents up, and with 80 cents he can live for two or three days. The consequence is, that the industries of the country lose the labor of his hands at least two days of each week. This, with the limited population we have, is most serious. Various means have been tried to solve this question, and the last and most practicable has been to import labor from the surrounding islands. For instance, in Porto Rico the cost of living of the negro is almost equal to hire, and only 50 cents is paid for a day's labor. No doubt such people, who are both frugal and industrious, can be induced to come here to work at higher wages. The necessity of prompt action on the part of the owner of sugar estates to remedy this difficulty is apparent, and no doubt, as steps have already been taken, the near future will see a large importation of working people from the outlying islands to relieve this dearth of labor.

OTTO E. REIMER,
Consul.

UNITED STATES CONSULATE,
Santiago de Cuba, September 23, 1887.

PORTO RICO.

REPORT OF CONSUL CONROY.

Production.—The annual production of sugar in Porto Rico is estimated at 170,400,000 pounds, valued at about \$4,000,000, viz :

Districts.	Quantities.	Value.
	<i>Pounds.</i>	
San Juan consular district	44,100,000	\$1,000,000
Aguadilla agency district	661,500	150,000
Arecibo agency district	22,050,000	500,000
Fajardo agency district	13,280,000	300,000
Guayamas agency district	17,540,000	400,000
Naguabo agency district	28,665,000	600,000
Ponce agency district	35,280,000	800,000
Vieques agency district	8,820,000	200,000
Total	170,446,500	3,950,000

Taxes.—Government taxes are 5 per cent. on value of production. Municipal taxes are 50 per cent. of government taxes. These figures are generally augmented to cover deficiencies in the respective budgets.

Export duties.—By a royal decree promulgated at Madrid July 28, 1887, for the colonies, duties have been suppressed on sugars, molasses, and rum exported from the islands of Cuba and Porto Rico. This decree went into effect on the 1st of August, 1887. All classes of sugars and molasses have heretofore paid export duty, viz : sugars, per 100 kilograms, 22 cents (Spanish)—equal to 11 cents per 100 pounds; molasses, per 100 kilograms, 5 cents. Aguardientes, or white rum, is not quoted as paying export duty.

This decree suspending the export duty on sugars and molasses has already caused much animation in the market, but I am sorry to remark that there remains but a very small part of this year's crop to

be exported. The planters will not, therefore, be materially benefited by this concession this year.

Import duties.—Import duties on foreign sugars, \$9, Spanish coin, per 100 kilograms, with 6 per cent. additional.

Trade.—The extent of last year's trade, together with countries to which the product was exported, will be seen by the following statement :

Whither exported	Quantities.	Value.
	<i>Pounds.</i>	
United States	97,389,430	\$2,870,890
British America	21,084,308	530,561
Spain	18,006,830	885,306
England	8,950,095	263,827
Danish West Indies	1,066,350	30,526
Germany	89,200	2,024
France	35,290	1,029
Italy	26,665	836
Total	141,627,168	4,145,521

Although the crop of sugar this year has been more productive than in 1886, it is certain that there will be a deficiency noted next year on account of the reduced acreage under cultivation, and this circumstance is due to want of means on the part of sugar planters; who are mostly more or less in debt, and deprived of credit.

EDW. CONROY,

Consul.

UNITED STATES CONSULATE;

San Juan, Porto Rico, August 31, 1887.

TARIFF LAWS OF NEW SOUTH WALES.

REPORT OF CONSUL GRIFFIN.

The government of New South Wales, as predicted in my report on the tariff, transmitted to the Department of State in December last, and published in No. 75 of the Consular Reports, has returned to what is regarded as a free-trade policy. The new tariff act was passed by a vote of 39 to 13 in the House of Representatives, on the 23d of June last, and received the sanction of the legislative council a few hours before the adjournment of the colonial parliament on the 8th ultimo. The act, a copy of which is hereto appended, provides that it shall be deemed to have come into effect on the 30th day of March, 1887, and that the customs duties act of 1886 is hereby repealed, but that the repeal shall not affect the past operations of the former act, or anything commenced thereunder, and that the duties, both specific and ad valorem, heretofore levied shall be collected until the 30th day of September, 1887.

These duties also apply to goods in bond, if taken out before the end of that period.

It is interesting to note that notwithstanding certain duties of a strictly protective character, and which have always been levied, that the policy of the government has been practically that of free trade since the year 1852. At various intervals, however, departures have been made and a large number of specific duties added, but they have never remained long in force.

Mr. Edward Pulsford, an able and scholarly statistician of this city, to whom I am principally indebted for the material of this re-

port, says it would not be difficult to show that "whenever the government abandoned the policy of free trade it invariably resulted in injury to the commercial interests of the colony." He is very decided in the opinion that wealth is most easily obtained when it is followed in natural channels, and that people will take up industries in the order of their value if they are left alone. "The fact," he says, "that valuable industries receive no attention is generally a proof that others still more valuable employ all the available labor."

Wool is the chief industry of New South Wales, and Mr. Pulsford attributes the rapid strides made in the industry to the free-trade policy of the government, inasmuch as the pastoralist has always been permitted to obtain his supplies of food and manufactured goods without having to pay prohibition duties to producers and manufacturers. The colony has therefore been enabled to carry on this vast industry upon the most favorable terms, and at the same time to receive the highest price for their products in the markets of the world.

During the last decade New South Wales has increased the number of her sheep from 24,386,512 to 39,169,304, whilst the number in her sister colony, Victoria, in which the policy of protection prevails, declined during the same period from 11,749,532 to 10,652,118. The woolen mills of New South Wales are not so numerous as those of Victoria, but they have been built up without artificial aid. The Victorian mills, on the other hand, have been assisted with an *ad valorem* duty on woollens from 15 to 20 per cent., but even that has been insufficient to make the industry pay. At the last session of parliament an additional *ad valorem* duty of 5 per cent. was added, but the manufacturers have ever since been clamoring for a still further increase. Mr. Munro, a member of the Victorian parliament and a manufacturer, stated recently in the assembly that the mill with which he was connected lost the whole of its capital, \$90,000, of which \$15,000 had been subscribed by himself, and that the woolen industry of the colony was on the verge of ruin. "The Ballarat mill," he said, which was regarded as the most substantial in Victoria, had not paid a profit for years, and that an *ad valorem* duty of 20 per cent. might possibly enable the mills to struggle along for a few years; then they would die an agonizing death. He did not think that even 50 per cent. *ad valorem* duty would make them profitable to their owners.

In 1876 the various woolen mills in Victoria gave employment to 611 hands, and in 1886 the number had increased to 980.

Besides the *ad valorem* duty of 20 per cent. it is estimated that the natural protection of having the wool on the spot is equal to fully 10 per cent. more.

The woolen mills in New South Wales do not employ more than 200 hands, but it can scarcely be said that they are any worse off than in Victoria. What is wanted for the benefit of the mills in both colonies is improved machinery, and not protection. The high cost of labor is one of the chief obstacles with which the manufacturers have to contend in the colonies, but it is a mistake to suppose that Victoria has all the manufactories and New South Wales none. The statistics heretofore published have never done New South Wales justice. It is true enough that Victoria has the advantage in such industries as the boot and shoe factories, furniture factories, iron interests, flour mills, etc., but there are many other manufacturing industries in which she must yield the palm of excellence to her more

enterprising sister. The statistics published last year represented the horse-power of the various factories in New South Wales at 4,860 to 20,160 for Victoria, but the new statistical register just issued shows the horse-power in New South Wales to be 25,192 instead of 4,860.

The value of the New South Wales plant is given at \$25,010,000 against \$23,270,000 for Victoria. The number of hands employed is 45,783 for New South Wales and 49,297 for Victoria; but the New South Wales figures do not represent the number of hands employed as chaff cutters, corn crushers, jewelers, and workmen in the royal mint. If these were added, as in Victoria, New South Wales would show a larger number of hands than her sister colony. The population of the two colonies is about the same and is given at 1,030,000 each, but the increase during the last decade has been at the rate of 49 per cent. in New South Wales to only 23 per cent. in Victoria. Both the imports and exports have for many years been much larger in New South Wales than in Victoria. Indeed, the average annual excess of the former colony is nearly \$30,000,000. The following are the figures for 1885: Imports, \$90,223,020; exports, \$77,758,920; total Victoria, \$167,981,944. Imports, \$116,805,980; exports, \$82,208,720; total New South Wales, \$199,014,600. Excess in imports and exports for New South Wales, \$31,032,700.

The comparison of the shipping between the two colonies is even more favorable to New South Wales, as the average annual tonnage of the latter colony is 1,000,000 tons in excess of that of Victoria.

Both colonies have, however, enjoyed a fair degree of prosperity, and it is no more likely that one will abandon the policy of protection than the other that of free trade.

The most sweeping change in the tariff of New South Wales is the abolition of the ad valorem duties; next to that is the repeal of the specific duties on as many as fifty-seven different articles. The following is a list of the articles upon which heretofore specific duties were levied but are now admitted absolutely free:

Acid (acetic).
Acid (tartaric).
Aerated waters.
Arrowroot.
Bags (calico).
Bags (paper, plain).
Barley (pearl).
Baking powder.
Blue.
Bi-carbonate soda.
Bolts, nuts, screws.
Canvas.
Cream of tartar.
Cordials.
Cordage and rope.
Dates.
Effervescing powders.
Fruit salts.
Gelatine and isinglass.
Ginger.
Glue.
Groats (patent).
Honey.
Hops.
Iron (bars and rods).
Iron chains.
Lard.
Lead.

Malt.
Mustard.
Meat (preserved).
Meat (extract).
Nuts.
Oatmeal.
Pepper and spices.
Paper (brown).
Paper (circular).
Paper (writing).
Pickles and sauces.
Playing cards.
Putty.
Plaster.
Pitch, tar, and resin.
Provisions (vegetable).
Provisions (preserved).
Rice flour.
Saltpeter.
Safes, iron doors.
Soap.
Soda crystals.
Turpentine.
Vermicelli and macaroni.
Vinegar.
Wax.
Wool-packs.
Zinc.

DUTIES ON AMERICAN PRODUCTS.

It is to be regretted that specific duties are retained upon a number of articles usually imported from the United States. The most important of these are the duties on timber, tobacco, cigars, biscuits, beer, bacon, hams, cement, corn, flour, maizena, confectionery, essences, flavoring extracts, dried and tinned fish, condensed milk, kerosene, paints and varnish, butter, sugar, etc.

Timber.—The duty on timber is 3 shillings (73 cents) per 100 superficial feet on dressed and 1s. 3d. (36 cents) on rough or undressed. The timber trade with the United States has been increasing for many years, and while the duties may for a time check the imports, the colony will continue to draw on America for no inconsiderable portion of its timber supply, as the Australian hard woods are not so suitable for building purposes. Doors, sashes, and shutters pay duty of 2s. (48 cents) each, but shingles, palings, and laths are admitted free.

Beer.—The duty on beer is 6d. (12 cents) per gallon in wood or casks. If in bottles it is 9d. (18 cents) per gallon. Six quarts, or twelve pint bottles, are regarded as containing one gallon.

The beer duty includes all kinds of beer, ale, porter, spruce, cider, and perry. The imports of bottled beer have increased largely during the last few years, especially from the United States. The imports from that country during the year 1886 amounted to 244,470 gallons, valued at \$281,350, against 90,727 gallons, valued at \$77,685, for 1885, and 43,055 gallons, valued at \$53,445, for 1884.

The superb quality and flavor of the American product have made it very popular, not only in New South Wales, but throughout Australasia. The quantity of beer manufactured in New South Wales during the year 1886 was 13,178,912 gallons, against 14,716,000 gallons for 1885.

The new tariff places an excise tax of 3d. (6 cents) per gallon upon all beer manufactured in the colony. This tax met with much opposition on the part of the brewers, who urged that it was more than double the tax in Great Britain, and that it would not only fall heavily upon the consumer, but tempt manufacturers to supply an inferior article. The tax, however, was allowed to remain, and it is the first time that it has ever been levied in the colony.

Bacon and hams.—The tax of 2d. (4 cents) per pound on bacon and hams has been levied and collected here ever since 1871, and it has utterly failed to be of the slightest benefit to the colony. In fact, at no period in the history of the colony has the curing of bacon been so much neglected. Moreover, since the tax was levied the number of hogs in proportion to the population has steadily declined. In 1861, the decade previous to levying the tax, the number of pigs in the colony was 162,556 and the population 421,924.

The subjoined table, which has been prepared for me by Mr. Pulsford, shows in the form of five periods of three years each the number of pigs to every 100,000 of population.

Table showing the supply of pigs in New South Wales for every 100,000 population.

Periods.	Average supply.	Periods.	Average supply.
1861-70	38,537	1877-79	22,987
1871-73	41,870	1880-82	20,085
1874-76	33,279	1883-85	22,407

These figures show unmistakably that since the duty was imposed New South Wales farmers have been unable to supply the population with hog products. Only in two out of the sixteen years has the actual number of pigs ever equaled the number in 1870, and even then they were far below the supply of that year on the basis of population.

Butter.—The duty on butter, 2*d.* (4 cents) per pound, is retained. This duty was only imposed last year, but prior to that period the exports of New South Wales butter frequently exceeded the imports. There appears to be no necessity for the duty, as the colony is able to produce more butter than it can consume. The export of butter for 1886 was 287,029 pounds, against 352,212 pounds for 1885, showing a decline of 65,183 pounds for 1886. The cause of the decline was principally the dry season.

Cheese.—The duty on cheese, 2*d.* (4 cents) per pound, is also retained. There is, however, no more necessity for this tax than for that on butter, as the colony, except in seasons of drought, has considerable quantities available for export. The cheese made here is of excellent quality, most of the factories being conducted upon the American principle. The factories on the south coast are especially worthy of praise. The "Wolumla Cheese Factory," one of the best conducted in the colony, has adopted the piece system. A number of families are employed on the station, and each has its own proportion of the milking herd. The yield in good seasons is about 700 gallons per day from 350 cows. The morning's and evening's milk is placed in American vats with false bottoms, into which hot water or steam is injected to raise and maintain the temperature of the milk. The curd is cut into small segments, put into metal cylinders, and then into a lateral press, whence it is compressed to any required degree. There are two American steam vats at the station, each containing 400 gallons, and an American steam gang press. Blanchard's (American) cylindrical churn, revolved by steam power, is employed, capable of making 120 pounds of butter daily. The butter is not allowed to be handled, as that method spoils the "grain." The butter and cheese manufactured at the station command the highest price in the Sydney market. Much care is taken with the cheese throughout the process of manufacture, and it is not allowed to leave the storing room until sufficiently cured.

Candles.—The tax on candles is 2*d.* (4 cents) per pound. This duty is strictly of a protective character and is intended for the benefit of the manufacturers here. It falls heavily upon the people in the country districts, who are away from the gas supply and are obliged to pay a high price for their light, or else put up with an indifferent article.

Tobacco.—The duty on manufactured or unmanufactured tobacco for home consumption is 3*s.* (73 cents) per pound. Unmanufactured tobacco, or manufactured leaf, if entered at the customs to be manufactured in the colony, has to pay a tax of only 1*s.* (24 cents) per pound. It must, however, be used in a licensed tobacco factory for manufacturing purposes. The admission of this class of tobacco at 1*s.* (24 cents) per pound is regarded as quite a concession to the tobacco manufacturers; New South Wales having taken the lead of all the other Australasian colonies in the manufacture of tobacco.

During the year 1886 New South Wales imported 2,353,497 pounds of tobacco, against 1,835,598 pounds for the year 1885. Of the imports for 1886, 1,384,036 pounds consisted of manufactured and 507,916

pounds of unmanufactured or manufactured leaf; 310,694 pounds of cigars; 49,923 pounds of cigarettes, and 928 pounds of snuff.

During the same period the colony grew 2,570,000 pounds of tobacco. Victoria grew 1,538,000 pounds and Queensland 148,960 pounds. The quantity of tobacco manufactured in New South Wales in 1886 was 2,044,000 pounds. The quantity manufactured in Victoria was 1,368,000 pounds, thus showing an excess for New South Wales over Victoria of 676,000.

Last year there was an excise duty of 1s. (24 cents) per pound on all tobacco manufactured in the colony. This gave the colonial manufacturers an advantage of 2s. (48 cents) per pound. This was regarded as an enormous advantage, and the Government increased the excise duty to 1s. 3d. (30 cents) per pound. The increase of 3d. (6 cents) per pound in the excise tax awakened much opposition on the part of the various factories in the colony. Public meetings of the tobacco manufacturers and tobacco workers were held in Sydney denouncing the tax. It was said that if it went into force over 1,000 hands would be turned out of employment. Deputation after deputation waited upon the colonial treasurer with a view of having the tax repealed. The treasurer, however, firmly refused to alter the duty. He said that the manufactories were using 3 pounds of colonial grown leaf to every 1 pound of imported leaf, and that they had already a heavy concession. He pointed out that the revenue on tobacco had been declining from year to year, and that the profit must have gone somewhere. He gave as a further reason for the increase of duty that the consumption of the colonial leaf was increasing, whilst that of the imported was declining, and that the Government, failing to obtain revenue from the leaf, must obtain it from the tobacco. When the excise duty was fixed at 1s. (24 cents) per pound it was supposed that manufacturers would use the imported leaf, upon which they paid 1s. (24 cents) per pound duty, with equal quantities of the colonial leaf, upon which they paid no duty; but, as the treasurer stated, they have from year to year increased the quantity of the colonial leaf and lessened that of the imported. It is admitted, however, that the colonial leaf is not as suitable for manufacturing purposes as the imported, and the manufacturers here state that in order to produce a good article of tobacco they must have the leaf from the United States.

Confectionery.—This article pays a tax of 2d. (4 cents) per pound, or £18 13s. 4d. (\$90.84) per ton. This tax seems inexplicable when the duty on sugar is only £5 (\$24.33) per ton. It is not expected that confectionery should be admitted free when sugar is taxed, but there ought to be something like uniformity. The equivalent of sugar duty would be about £7 (\$34.06) per ton.

Jams.—Jams pay a tax of 1d. (2 cents) per pound; but the sugar in 1 pound of jam is covered by a $\frac{1}{4}$ d. ($\frac{1}{4}$ cent), so that the other $\frac{3}{4}$ d. ($1\frac{1}{4}$ cents) is a protection.

Sugar.—The tax upon refined sugar is 6s. 8d. (\$1.62) per cwt. Raw sugar, as previously stated, is £5 (\$24.33) per ton. The various governments of Australia are much exercised over the question of the foreign bounties on sugar. They are especially indignant at the bounty system of France and Germany, and steps of retaliation, for the purpose of protecting the sugar refineries, have been from time to time threatened by all the colonies, but Victoria is the only one in the group that has actually adopted retaliatory measures. The Hon. D. Gillies, premier and colonial treasurer, in issuing his

budget, at the opening of the Parliament of Victoria on the 26th ultimo, said :

The government have determined to increase the duty on sugar imported into the colony, and alter the tariff in the direction of protecting the industry from the unfair competition of bounty-fed sugars and encouraging the refining industry.

He contended this was not a question of free trade or protection. "The government were not interfering," he said, "with competition between individuals, but between the state and individuals, which was an unfair competition."

The duty on all imported sugar, 3s. (73 cents) per cwt., was repealed and the following substituted to take effect immediately: Sugar-cane, 3s. 6d. (85 cents) per cwt.; sugar-cane, bonded and refined Victoria, 2s. 6d. (60 cents) per cwt.; beet and all other sugars 6s. (\$1.46) per cwt.

Mr. E. W. Knox, of New South Wales, in a recent paper on the subject of sugar bounties, says that a continuance of the present bounties for five years will break up three-fourths of the Australian sugar plantations. Mr. Pulsford, however, contends that more injury has resulted to the cane-sugar industry from the improvements in beet culture than from the payment of bounties. He cites the fact that the beet now yields 12 per cent. of saccharine matter, instead of 4 per cent. as formerly. Thus when formerly 100 tons of beet root yielded only 4 tons of sugar, the same quantity now yields 12 tons. Other authorities give the yield at much higher figures. Mr. Knox says, in the communications mentioned above, that beet root not unfrequently yields over 20 per cent.—a sweetness which he had met with only once or twice in his own records, which referred to a large quantity of cane each year—and that there is strong reason to believe that this sweetness can be still further increased.

Tinned Fruits.—Tinned fruits and preserves are taxed at 1d. (2 cents) per pound. This duty is also of a strictly protective character. Several local factories have recently improved the quality of their products, through the importation of machinery and skilled labor from the United States; and it is said that competition between the American and local article is likely to be very keen, especially in pears, peaches and pineapples, the last of which are not produced in the colony, but are brought here for canning purposes from the adjacent islands.

Spirits.—Spirits pay a tax of 14s. (\$3.40) per gallon. This is an enormous duty, being nearly twice as much as in the United States, and 2s. (48 cents) more per gallon than in Victoria. The tax 14s. (\$3.40) per gallon applies to all kinds of spirits imported into the colony, the strength of which can be obtained by "Sykes's hydrometer." The law provides that no allowance beyond 16.5 shall be paid for the under-proof of any spirits of a less hydrometer strength than 16.5 under-proof. Spirits in bottles containing over one gallon and under two gallons are charged as if containing two gallons.

Perfumed spirits.—Perfumed spirits, Florida water, and bay rum are taxed at the rate of 15s. (\$3.65) per gallon. I have endeavored to point out to the customs authorities that these extracts cannot be imported and sold here at a profit under the present tariff. I have not been able as yet to obtain a decision in favor of the admission of those articles at a more moderate duty, but it is probable that some concession will be granted, inasmuch as the spirits cannot be used

for drinking purposes, or in any other manner than in the combinations of the several flavors.

Bay rum.—The tax of 15s. (\$3.65) per gallon on bay rum is unreasonably high. This article is made by a decoction of bay leaves in spirits. It is not manufactured in the United States, but imported there from St. Thomas, West India Islands, in bulk and bottled by Burnett & Co., of Boston, Mass., and by others.

Iron.—Galvanized iron, in bars, sheets, or corrugated, pays a tax of £2 (\$9.73) per ton. Iron wire is taxed at the rate of £1 (\$4.86) per ton.

Paints.—Paints and colors ground in oil are taxed under the new tariff at 3s. (73 cents) per cwt.

Varnish.—This article pays a duty of 2s. (48 cents) per gallon.

Kerosene.—The tax upon kerosene is 6d. (12 cents) per gallon. This was levied when kerosene sold in the United States at 3s. (73 cents) per gallon, and now, when it is worth 4d. (8 cents) per gallon, this enormous duty, 6d. (12 cents) per gallon, which is equal to 150 per cent. ad valorem, is still retained. It is unquestionably of a prohibitory character, and is continued not for the amount of revenue to be derived therefrom, but for the purpose of protecting the products of the Australian Kerosene Oil and Mineral Company at Mittagong, 77 miles from Sydney, and the New South Wales Shale and Oil Company, at Hartley, 83 miles from Sydney. These companies make from 150,000 to 200,000 gallons of kerosene per annum by an expensive process of extracting oil from the shale product, which I have described in my reports on the kerosene trade of this colony.

Mr. Charles McClure, of this city, who has given much study to the existing trade relations between the United States and Australasia, in a communication, under date of the 3d instant, directs my attention to the various advantages enjoyed by the colonial manufacturers of kerosene in being exempt not only from the heavy import duties, but from the payment of freight, landing, and wharfage charges, and the charges for storage in bonded warehouses, all of which the importers of American kerosene have to pay.

Mr. McClure thinks that the trade is handicapped by about 3d. (6 cents) per gallon from the wharfage, landing, and storage charges. If to these charges we add the duty of 6d. (12 cents) per gallon and ½d. (1 cent) per gallon for freight and leakage during the voyage from New York or Boston, it will be seen that the local article enjoys a protection of fully 10d. (20 cents) per gallon. Moreover, purchasers residing in the district beyond the colonial oil works are enabled to save the cost of freight from Sydney, to which the imported article is subjected. When an effort was made at the last session of parliament to have the import charges on kerosene modified it met with much opposition on the part of the friends of the home product. It was said that the two companies had expended the sum of about \$700,000 in erecting their works, which give employment to a large number of hands. It was also said if the tax was removed the local industry would be destroyed and that foreign capitalists would be shy of investing money in a country which refused to protect its industries. In former reports I have expressed the opinion that the colonial oil would not compare favorably with the American product. Exception, however, was taken to this opinion by experts, and for my own information I purchased samples of both kinds of oil, and after using them in lamps of precisely the same

pattern I am free to confess that I could discover very little difference between them.

I have thought it best to mention this fact that exporters of American kerosene may know exactly what they have to contend with. The trade in American kerosene is, however, steadily increasing.

In 1883 the imports of kerosene from the United States into New South Wales amounted to 488,609 gallons; in 1884 to 496,612 gallons; in 1885 it had swelled to 1,105,771 gallons, and in 1886 to 1,289,227 gallons. In urging the reduction of the duties upon American products it should not be forgotten that it is to the interest of the Australian as well as to the American that the trade with the United States should be fostered. During the year 1886, a year of great depression to the colonies, the United States was the only country in all the world that increased her export trade with Australia. The imports from Britain to New South Wales in 1886 were nearly \$10,000,000 less than in the year previous; and from Germany declined from \$1,862,785 in 1885 to \$1,838,160 in 1886; France, from \$1,726,155 to \$1,180,960; Belgium, from \$976,590 to \$899,155; China, from \$1,517,995 to \$979,650; South Sea Islands, from \$184,645 to \$182,455; New Caledonia, from \$410,905 to \$324,760. The imports, however, from the United States increased during the same period from \$5,042,865 to \$5,193,865.

THE REPEAL OF THE AD VALOREM DUTIES.

The repeal of the 5 per cent. ad valorem duties is regarded as a great boon, not only to importers but to all classes of people. It would be difficult to estimate the benefits which will result therefrom, when we consider the various interests which were affected by them. The duties operated against thousands of different articles. Under the head of drapery alone, more than one hundred items were affected, not to mention the large number of articles under the heads of drugs and hardware. In looking over the list it seems that almost everything was taxed, such as arms, brushware, carriage-makers' materials, bricks, cutlery, drugs, dye-stuffs, lamp-ware, passengers' luggage, saddlery, specimens of natural history, watches, clocks, and so on through a long list of items, all of which are exempt under the new law. The repeal of the duty on machinery will be certain to increase the imports of that article from the United States. It is now very generally known in Australasia that American machinery is much simpler in construction, and in every way better adapted to the wants of the people than that made elsewhere.

Sir Julius Vogel, the colonial treasurer of New Zealand, stated not long since, in a speech at Auckland, that his government, from patriotic motives, ordered from Great Britain a number of locomotives of the same pattern as those from the United States, but that when they were nearly ready for shipment they were found to be so heavy that the engineer in charge of the New Zealand roads stated that the bridges would have to be strengthened before the locomotives could be put on the roads, and that they were much heavier than the plans and specifications called for. The English manufacturers stated that they could not make the engines of the limited weight. The New Zealand government thereupon cabled to the United States for the required supply.

The receipts from the ad valorem duties, during the time they were in force last year, amounted to \$1,370,425, and the estimated receipts

from the same source for the present year up to the 30th of September, at which period they will cease to be collected, are \$1,500,000. The loss from the *ad valorem* and other duties that have been repealed are to be made up principally from the increase in taxes on spirits, beer, tobacco, coffee, and sugar.

The total receipts from all sources of taxation, during the year 1886 were \$13,059,075. Of this amount the customs yielded \$10,342,755; excise, \$549,165; stamps, \$1,539,965; and licenses from spirit dealers, brewers, auctioneers, hawkers, peddlers, pawnbrokers, tobaccoists, etc., \$627,190. Total, \$13,059,075. The colonial treasurer estimates the receipts for 1887 at \$15,043,500; the customs, \$11,065,500; excise, \$1,447,500; stamps, \$1,900,000; licenses, \$630,500. Total, \$15,043,500.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, August 8, 1887.

AN ACT for granting to Her Majesty certain duties of customs and for other purposes. [Assented to 8th July, 1887.]

Be it enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and Legislative Assembly of New South Wales in Parliament assembled, and by the authority of the same, as follows:

1. This act may be cited as the "Customs Duties Act of 1887," and shall be taken to have come into operation on the thirtieth day of March, one thousand eight hundred and eighty-seven.

2. The import duties mentioned in Schedule A, hereto annexed, shall be levied and collected upon the importation of all goods therein mentioned and upon all such goods in bond, which duties shall be in lieu of all duties heretofore chargeable thereon.

3. Subject to the qualifications and provisions in the two next following sections of this act expressed, the "Customs Duties Act of 1886" is hereby repealed, but the repeal thereof shall not affect the past operation of the said act nor anything lawfully done or commenced thereunder.

4. Upon all goods specified or mentioned in Schedule A of the said "Customs Duties Act of 1886" which are not specified or mentioned in Schedule A of this act, and which are not referred to in the next following section of this act, the respective duties authorized to be levied and collected by the said act of 1886 shall continue to be levied and collected until and including the thirtieth day of September, one thousand eight hundred and eighty-seven. And upon all goods liable under the said act of 1886 to *ad valorem* duties such duties shall be levied and collected until and including the said thirtieth day of September, one thousand eight hundred and eighty-seven. And such duties shall in respect of both classes of goods be levied and collected upon all such goods which may be in bond at any time between the commencement of this act and the thirtieth day of September; one thousand eight hundred and eighty-seven, inclusive, if taken out of bond on or before such last-named day. And for the purpose of levying, collecting, and enforcing payment of all duties mentioned in this section the provisions of the said act of 1886 may be applied, notwithstanding anything contained in the last preceding section of this act.

5. The duties authorized to be levied and collected by the "Customs Duties Act of 1886" upon malt and hops respectively shall continue to be levied and collected under the said act until and inclusive of the thirtieth day of April, in the year one thousand eight hundred and eighty-seven, and no longer.

6. All contracts made on or before the thirtieth day of March, one thousand eight hundred and eighty-seven, for the sale or delivery of any goods otherwise than in bond the duty on which is increased or decreased by this act shall be subject to an increase or decrease in the contract price of such goods corresponding in rate and amount with the amount of such increase or decrease of duty as aforesaid: *Provided*, That it shall be at the option of either of the parties to any such contract, by notice in writing under his hand, to be served on the other contracting party or his agent being a party to such contract or agreement within fourteen days after the

passing of this act, to declare such contract or agreement null and void, and the same shall thereupon be null and void accordingly.

7. If any person shall have been required on or after the thirtieth of March, one thousand eight hundred and eighty-seven, to pay import duties upon any goods mentioned in Schedule A of this act according to the rate prescribed by Schedule A of the "Customs Duties act of 1886," he shall be entitled to a refund of the difference between the sum chargeable under the first and that chargeable under the second of the said schedules.

8. All goods imported for the supply of Her Majesty's service shall be exempt from all duties and imposts of every description whatsoever, and nothing in this act contained shall be deemed to alter or repeal the provisions of the "Customs Regulation act, 1879."

9. All powers and authorities conferred by the customs regulation act in force for the time being upon the collector or any other officer of customs may be exercised and enforced by such officers in the administration of this act.

Schedule A.

	Rate.	United States equivalent.
Beer, ale, porter, spruce, or other beer, cider, and perry :	s. d.	
In wood or jar..... per gallon..	0 6	\$0.12
In bottle..... do.....	0 9	.18
For six reputed quarts or twelve reputed pints..... do.....	0 9	.18
Biscuits—other than ship..... per lb..	0 1	.02
Butter..... do.....	0 1	.02
Candles per lb. or reputed package of that weight and so in proportion for any such reputed weight and stearine..... per lb..	0 1	.02
Cement..... per barrel..	2 0	.48
Cheese, bacon and hams..... per lb..	0 2	.04
Chicory dandelion, and taraxicum :		
Raw or kiln-dried..... do.....	0 3	.06
Roasted, ground, or mixed with any other article..... do.....	0 6	.12
Chocolate—Plain or mixed with any other article and chocolate creams..... do.....	0 4	.08
Cigars..... do.....	6 0	1.48
Cigarettes (including wrappers)..... do.....	6 0	1.48
Corn, flour, and maizena..... do.....	0 1	.02
Cocoa :		
Raw without allowance for husks or shells..... do.....	0 3	.06
Prepared paste or mixed with any other article..... do.....	0 4	.08
Coffee :		
Raw..... do.....	0 3	.06
Roasted, ground, or mixed with any other article..... do.....	0 6	.12
Confectionery (including cakes, comfits, liquorice, liquorice paste, lozenges of all kinds, cocoanut in sugar, sugar candy, succades, and sweetmeats..... per lb..	0 2	.04
Essences, flavoring and fruit :		
Containing not more than 25 per cent. of proof spirit..... per gallon..	4 0	.97
Containing more than 25 per cent. of proof spirit..... do.....	14 0	3.40
Fish—Dried, preserved, or salt..... per lb..	0 1	.02
Fruits—Dried and candied (exclusive of dates)..... do.....	0 2	.04
Glucose :		
Liquid and sirup..... per cwt..	3 4	.81
Solid..... do.....	5 0	1.21
Iron :		
Galvanized, in bars, sheets, or corrugated..... per ton..	40 0	9.73
Iron and steel wire..... do.....	20 0	4.86
Galvanized manufactures (except anchors)..... do.....	60 0	14.60
Jams—Per pound or reputed package of that weight and so in proportion for any such reputed weight..... per lb..	0 1	.02
Milk, condensed or preserved..... do.....	0 1	.02
Naphtha and gasoline..... per gallon..	0 6	.12
Oils, except black cocoanut and sperm and palm..... do.....	0 6	.12
In bottle :		
Reputed quarts..... per dozen..	1 6	.36
Reputed pints..... do.....	0 9	.18
Reputed half pints and smaller sizes..... do.....	0 6	.12
Opium and any preparation or solution thereof not imported for use as a known medicine..... per lb..	20 0	4.86
Paints and varnish :		
Paints and colors ground in oil..... per cwt..	3 0	.73
Varnish and lithographic varnishes..... per gallon..	2 0	.48
Powder and shot :		
Sporting powder..... per lb..	0 3	.06
Blasting powder..... do.....	0 1	.02
Dynamite and lithofracteur..... do.....	0 1	.02
Shot..... per cwt..	5 0	1.21

Schedule A—Continued.

	Rate.	United States equivalent.
Beer, ale, porter, spruce, or other beer, cider, and perry—Continued.	s. d.	
Preserved jellies and fruits boiled in pulp or partially preserved other than by sulphurous acid.....per lb.	0 1	\$0.02
Rice.....per ton.	60 0	14.60
Sago, tapioca, and semolina.....per lb.	0 1	.02
Salt.....per ton.	90 0	4.86
Sarsaparilla and bitters:		
If containing not more than 25 per cent. of proof spirit.....per gallon.	4 0	.97
If containing more than 25 per cent. of proof spirit.....do.	14 0	3.40
Spirits:		
On all kinds of spirits imported into the colony the strength of which can be ascertained by Sykes's hydrometer.....per proof gal.	14 0	3.40
No allowance beyond 16.5 shall be made for the under proof of any spirits of a less hydrometer strength than 16.5 under proof.		
On all spirits and spirituous compounds imported into the colony the strength of which can not be ascertained by Sykes's hydrometer.....per liquid gal.	14 0	3.40
Case spirits—Reputed contents of two, three, or four gallons shall be charged—		
Two gallons and under as two gallons.		
Over two gallons and not exceeding three as three gallons.		
Over three gallons and not exceeding four as four gallons.		
Methylated.....per gallon.	4 0	.97
Perfumed spirits, perfumed water, Florida water, and bay rum...per liquid gal.	15 0	3.65
Sugar:		
Refined.....per cwt.	6 8	1.62
Raw.....do.	5 0	1.21
Molasses and treacle.....do.	3 4	.81
Tea.....per lb.	0 3	.06
Timber (other than laths, building shingles, dye-woods, palings, undressed sandalwood staves, and casks in shooks):		
Dressed.....per 100 ft. superficial.	3 0	.73
Rough and undressed.....do.	1 6	.36
Doors, sashes, and shutters.....each.	2 0	.48
Tobacco:		
Delivered from ship's side or from a customs bond for home consumption—manufactured, unmanufactured, and snuff.....per lb.	3 0	.73
Unmanufactured, entered to be manufactured in the colony. At the time of removal from a customs bond or from an importing ship to any licensed tobacco manufactory for manufacturing purposes only into tobacco, cigars, or cigarettes.....per lb.	1 0	.24
Sheepwash.....do.	0 3	.06
Wines:		
Sparkling—for six reputed quarts or twelve reputed pints.....per gallon.	10 0	2.43
Other kinds.....per gallon.	5 0	1.21
Other kinds for six reputed quarts or twelve reputed pints.....per gallon.	5 0	1.21

FISHERIES OF NEW SOUTH WALES.

REPORT OF CONSUL GRIFFIN.

The fisheries of New South Wales are becoming more and more important every year, and those interested in them look forward confidently to the time when they will prove an immense source of wealth to the colony.

The list of marine food fishes is a long one and the supply is practically inexhaustible, but strange to say no attempt has been made to utilize them as articles of export. A few individuals, however, from time to time prepare and send abroad small lots of smoked and dried mullet, schnapper, and bream; but such shipments are looked upon as experiments, rather than as a desire to establish a permanent trade. In fact, there are only two fish-preserving establishments in New South Wales, and these are so small as to give employment to only about eleven hands. The total value of their plant, according to the Statistical Register for 1886, is \$1,250. The annual output is not given, but it would probably not exceed \$1,000.

There are a number of fishes which could be prepared for export, but they appear at certain periods for a short time only, and there are no facilities at hand for utilizing them, even supposing they could be found in sufficient quantities for the purpose.

The mullet (*Mugil grandis*) is the only variety which seems to offer any special inducement at present for tinning. They appear during the months of April and May in large shoals on the coast, never going far from land, and, proceeding in a northerly direction, enter almost every inlet and harbor. During these months the mullet is in the best condition and is full of roe, it being on its annual migration in search of spawning ground. This fish is said to be too fat to be preserved with salt and is apt to become rancid. The roe, however, when salted and smoked, is equal to anything of the kind in the world. The New South Wales royal fish commission especially recommends this fish for tinning purposes, and says that it has many of the properties of salmon. The form of the tin, it says, need not be like that used for preserving Californian salmon, but like the long slender tins used by the Hollanders.

The flavor of the New South Wales mullet is certainly very fine, but it is, I think, not equal to the mullet caught in New Zealand waters. The fishes of Australia differ very little from those of Europe and America. Mr. I. E. Tennison Woods, F. L. S., F. G. S., etc., who has given much thought and labor to the fish fauna of Australia, points out the fact that the great mass of the fish of the coast and rivers of the great island continent have relations to those of the neighboring seas, or to those where the same conditions of temperature and coast line prevail. The difference in species where they exist, are minor ones. These differences are more marked on the southern than on the northern coasts, and Mr. Woods says that the more remote the Australian coasts are from other lands, the more peculiar and distinct are the forms of animal life. Thus on the north and northwest and northeast coasts the fauna is closely connected with that of the Indian and tropical seas, and is in very many species identical with it. The tribes of the colder regions are here wanting, and in places we have the fishes of the equatorial zone, in all their gorgeous liveries of red, blue, green, and gold, arrayed in those fanciful patterns which awaken the enthusiasm of every naturalist. We find also that as we go southward on either coast there is a gradual disappearance of the tropical fauna and a mingling of that of the temperate regions.

New South Wales occupying an intermediate position in Australia, the fishes very naturally partake of an intermediate character.

Scientists enumerate several varieties of Australian fish, such as the *Ceratodus* and the *Cestracion*, which have disappeared from every other part of the world. The *Cestracion* (Port Jackson shark) has teeth like those of the fossil *Acrodus*, found in the mesozoic deposits.

The *Ceratodus* is described as an existing ganoid fish, exclusively represented in the Trias formation, its anatomy showing a connecting link between a lizard and a fish. Mr. Woods, in enumerating some of the exceptional fish of New South Wales, directs particular attention to several varieties of the frog fish, or *Antennarius*, belonging to the order *Pediculati*, a name which expresses the foot-like office of the fins, more fitted for walking on the ground than for swimming. These fish are found floating on the sea weeds. They are all highly colored, but their hues are associated with the sur-

rounding medium, so it is often difficult to distinguish them in the water.

Mr. Woods also directs attention to some peculiar gobies, or sea gudgeon, one of which is called the "hopping fish." The fins of this fish are developed into legs, with which it leaps along the mud flats. The eyes are on the top of the head and can be thrust far out of their sockets, and move independently of one another.

There are several varieties of sea horses in New South Wales waters, a name given from the shape of the head and the fore part of the body resembling that of a horse. One of the most striking peculiarities of the sea horse is that the male carries its eggs at the base of the tail opening, near the vent.

The *Phyllopteryx*, Mr. Woods thinks, is the most remarkable fish in Australia, if not in the world. He describes it as—

The ghost of a sea-horse with its winding sheet all in ribbons around it; and even as a ghost it seems to be in the last stage of emaciation, literally all skin and grief.

The long ends of ribs which poke through the skin and excite compassion he says—

Are really protective resemblances and serve to allure prey. It is, therefore, an impostor in spite of its rags and emaciation, and, like many a sturdy human being, puts on the aspect of misery more effectually to ply his trade.

Among some of the curious and indeed wonderful fishes of Australia should be mentioned the dugong, or *Halicore australis*. This fish resembles the porpoise in shape and size, but is unlike it in having no dorsal fin. The skin is very thick and is said to make excellent leather. The bones are as heavy as ivory and partake of a beautiful polish; when struck together they give out a metalliferous sound. The eyes are small and deep set, like those of a fat pig. The tail is like that of a whale. The fins are very small for the size of the animal, and are its only propelling power. Its habits are those of a ganniverous ruminant, and its stomach is exactly like that of an ox.

The dugong not unfrequently weighs as much as 300 pounds and measures 14 feet in length and 10 feet in girth. Such an animal will yield 300 pounds of meat and 6 gallons of oil. It suckles its young and has flippers with joints like human arms. It frequents the sandy mud flats and shallows along the shores of Queensland, and feeds upon the grass growing thereon. It is now seldom seen south of Moreton Bay, Queensland, but formerly they were observed in the mouths of the Tweed and Richmond Rivers, in New South Wales.

The color of the dugong is of a light olive brown. Its flesh is rich and nourishing, and meat can be cut from the same animal resembling beef, veal, and mutton. John Ching & Co., manufacturing chemists of Dunheved Island, Queensland, make an oil from the dugong which, it is said, has all the properties of the best cod-liver oil. Dugong oil has, in fact, become an article of commerce, depots for its sale being established at Townsville and Sydney.

It is recommended by leading physicians for consumption, diseases of the chest, chronic bronchitis, and general debility. It is devoid of any unpleasant taste and may be used as a substitute for lard or butter. It is highly recommended for cooking fish and for the manufacture of biscuits, pastry, etc.

FAMILIES AND SPECIES.

Fifty-nine different families and 361 species of New South Wales fishes have been described by Mr. I. E. Tennison Woods. The largest of these families, the *Percidæ* (the perch), is represented by 50 species. The next largest family, the *Sparidæ*, has 14 species; 16 have only 1 species and 8 only 2, and not quite half more than 3. The average is about 6.

I am indebted to Mr. Woods for the following table, showing the names of the different families of fishes found in the waters of New South Wales, together with the number of species belonging to each family.

Name of family.	No. of species.	Name of family.	No. of species.
Percidæ.....	50	Ophiocephalidæ.....	1
Squamipinnæ.....	4	Trachypteridæ.....	1
Nandidæ.....	2	Pomacentridæ.....	4
Mullidæ.....	8	Labridæ.....	18
Sparidæ.....	14	Gadopsidæ.....	1
Cirrhitidæ.....	6	Gadidæ.....	4
Scorpenidæ.....	11	Pleuronectidæ.....	9
Teuthididæ.....	2	Siluridæ.....	5
Berycidæ.....	8	Scopelidæ.....	6
Kuridæ.....	2	Salmonidæ.....	1
Polynemidæ.....	2	Galaxidæ.....	7
Scienidæ.....	2	Scombresocidæ.....	6
Xiphiidæ.....	1	Culpeidæ.....	12
Trichinidæ.....	1	Chirocentridæ.....	1
Acronuridæ.....	1	Symbrachidæ.....	1
Carangidæ.....	15	Muraenidæ.....	11
Cyttidæ.....	1	Syngnathidæ.....	6
Coryphænidæ.....	2	Sclerodermi.....	21
Scombridæ.....	10	Gymnodontes.....	12
Trachinidæ.....	5	Carcharidæ.....	8
Batrachididæ.....	1	Lamnidæ.....	1
Pediculati.....	4	Scyllidæ.....	3
Cottidæ.....	7	Cestraciontidæ.....	2
Cataphracti.....	1	Sprinacidæ.....	1
Gobiidæ.....	15	Rhinidæ.....	1
Blennidæ.....	17	Pristiophoridæ.....	1
Sythyrenidæ.....	3	Rhinobatidæ.....	2
Atherinidæ.....	4	Trygonidæ.....	3
Mugilidæ.....	7	Torpedinidæ.....	1
Fistularidæ.....	1	Ratidæ.....	1

Since the publication of this table a number of other fishes have been described by Mr. I. Douglas Ogilby, assistant zoologist in the Australian Museum at Sydney, to whom I am indebted for much of the material of this report.

EDIBLE FISHES.

The list of edible fishes is a large one and comprises 105 different species.

Mr. Ogilby is of the opinion that some of the best food fishes of the colony are never seen in the market, but he places the *Gerres oratus* (the silver or white bream) in the front rank of Australian fish. The *Arripis salar* (Australian salmon) comes next, but principally on account of the quantities in which it is found. It is of a greenish lead color, with the upper part of the body of a deep black, and numerous black spots on other parts of the body. The following is a list of all the edible fishes of New South Wales that have been described. It was prepared especially for me by Mr. Ogilby, and is corrected up to the latest date.

Edible fishes of New South Wales, arranged systematically by I. Douglas Ogilby, assistant zoologist of the Australian Museum at Sydney.

Family.	Species.	Common name.
(1) Percidæ (20 species)	<i>Lates colonorum</i>	Perch.
	<i>Enoplosus armatus</i>	Oldwife.
	<i>Caprodon schlegelli</i>	Long fin.
	<i>Serranus dæmell</i>	Black rock cod.
	<i>Plectropoma ocellatum</i>	Wirrah.
	<i>Lutianus fulviflamma</i>	
	<i>Lutianus macleayanus</i>	Macleay perch.
	<i>Glaucosoma scapulare</i>	Pearl perch.
	<i>Macquaria australasica</i>	Silver perch of the Murray.
	<i>Ctenolates ambiguus</i>	Golden perch.
	<i>Therapon cuvieri</i>	Trumpeter.
	<i>Therapon richardsoni</i>	Silver bream.
	<i>Therapon macleayanus</i>	
	<i>Lobotes surinamensis</i>	Boar-fish.
	<i>Histioporus labiosus</i>	Silver billy.
	<i>Gerres ovatus</i>	Murray cod.
	<i>Oligorus macquariensis</i>	Salmon.*
	<i>Arripis salar</i>	Red bull's eye.
	<i>Priacanthus macracanthus</i>	Sea pike.
	<i>Dinolestes muelleri</i>	
(2) Squamipinnæ (2 species)	<i>Scatophagus multifasciatus</i>	Sweep.
	<i>Scorpiæ squipinnis</i>	Red mullet.
(3) Mullidæ (2 species)	<i>Hypeneichthys porosus</i>	Spotted mullet.
	<i>Hypeneus signatus</i>	Blackfish.
(4) Sparidæ (9 species)	<i>Girella tricuspidata</i>	Do.
	<i>Girella simplex</i>	Rock blackfish.
	<i>Girella elevata</i>	Bluefish.
	<i>Girella cyanea</i>	Butterfish.
	<i>Haplodactylus lophodon</i>	Schnapper.
	<i>Pagrus unicolor</i>	Tarwhine.
	<i>Chrysophrys sarba</i>	Black bream.
	<i>Chrysophrys australis</i>	Drummer.
	<i>Pimelepterus meridionalis</i>	
(5) Cirrhitidæ (5 species)	<i>Chironemus marmoratus</i>	Morwong.
	<i>Chilodactylus morwong</i>	Jackass-fish.
	<i>Chilodactylus macropterus</i>	
	<i>Chilodactylus fuscus</i>	Carp.
	<i>Latris ramsayi</i>	Trumpeter.
(6) Scorpenidæ (3 species)	<i>Sebastes percolides</i>	
	<i>Scorpena cruenta</i>	Red rock cod.
	<i>Scorpena cardinalis</i>	Do.
(7) Teuthididæ (1 species)	<i>Teuthis nebulosa</i>	Black treevally.
(8) Berycidæ (1 species)	<i>Beryx affinis</i>	Nannygai.
(9) Sciaenidæ (2 species)	<i>Sciaena neglecta</i>	Jew-fish.
	<i>Otolithus atelodus</i>	Teraglin.
(10) Acanthuridæ (1 species)	<i>Prionurus microlepidotus</i>	
(11) Carangidæ (7 species)	<i>Caranx trachurus</i>	Yellow tail.
	<i>Caranx georgianus</i>	White treevally.
	<i>Seriola lalandi</i>	Kingfish.
	<i>Seriola hippos</i>	Samson fish.
	<i>Temnodon saltator</i>	Tailor (Bluefish of N. Y.)
	<i>Trachynotus russelli</i>	Dart-fish.
	<i>Paeltus argenteus</i>	Bat-fish.
(12) Cyttidæ (1 species)	<i>Zeus australis</i>	John dory.
(13) Scombridæ (5 species)	<i>Scomber pneumatophora</i>	Mackerel.
	<i>Pelamys australis</i>	Bonito.
	<i>Cybium commersonii</i>	Great striped mackerel.
	<i>Cybium gultatum</i>	Spotted mackerel.
	<i>Elacate nigra</i>	Kingfish of West Indies.
(14) Trachinidæ (2 species)	<i>Sillago maculata</i>	The whiting.
	<i>Sillago ciliata</i>	Trumpeter whiting.
(15) Cottidæ (3 species)	<i>Platycephalus fuscus</i>	Flathead.
	<i>Trigla kumli</i>	Red gurnard.
	<i>Trigla polyommata</i>	Flying gurnard.
(16) Sphyrænidæ (2 species)	<i>Sphyræna obtusata</i>	Pike.
	<i>Sphyræna novæhollandiæ</i>	Do.
(17) Atherinidæ (1 species)	<i>Atherina lacunosa</i>	Hardy head.
(18) Mugilidæ (4 species)	<i>Mugil dobula</i>	Sea mullet.
	<i>Mugil peronii</i>	Flat-tail mullet.
	<i>Myxus elongatus</i>	Tallygalane.
	<i>Agonostoma lacustris</i>	Lake mullet.
(19) Labridæ (5 species)	<i>Coscyphus unimaculatus</i>	Pigfish.
	<i>Coscyphus gouldii</i>	Blue groper.
	<i>Coris lineolata</i>	Rainbow-fish.
	<i>Odax semifasciatus</i>	Rock whiting.
	<i>Olisthrops brunneus</i>	Herring cale.
(20) Gadopsidæ (1 species)	<i>Gadopsis marmoratus</i>	
(21) Gadidæ (2 species)	<i>Lotella limbata</i>	Beardy.
	<i>Pseudophycis barbatus</i>	

* Adult and trout young.

Edible fishes of New South Wales, etc.—Continued.

Family.	Species.	Common name.
(22) <i>Pleuronectidae</i> (4 species).	<i>Pseudorhombus russelli</i>	Flounder.
	<i>Pseudorhombus multimaculatus</i>	Do.
	<i>Ammotretis adpersus</i>	Long-snouted flounder.
	<i>Synaptura nigra</i>	Sole.
(23) <i>Siluridae</i> (3 species)	<i>Copidoglanis tandanus</i>	River catfish.
	<i>Cnidoglanis megastoma</i>	Sea catfish.
	<i>Arius thalassinus</i>	
(24) <i>Scopelidae</i> (2 species)	<i>Saurus tumbil</i>	Rauning.
	<i>Aulopus purpurissatus</i>	Sergeant baker.
(25) <i>Scombroscidae</i> (5 species.)	<i>Belone ferox</i>	Long tom.
	<i>Belone gavioloides</i>	Do.
	<i>Hemirhamphus intermedius</i>	Sea gar-fish.
	<i>Hemirhamphus regularis</i>	River gar-fish.
	<i>Arrhamphus sclerolepis</i>	Short billed gar-fish.
(26) <i>Galaxiidae</i> (1 species)	<i>Galaxias corii</i>	Mountain trout.
(27) <i>Clupeidae</i> (5 species)	<i>Chato-sus richardsonii</i>	Bony bream.
	<i>Clupea sagax</i>	Pilchered.
	<i>Clupea sundaica</i>	Maray.
	<i>Clupea hypselosoma</i>	Do.
	<i>Clupea novæ-hollandiæ</i>	River herring.
(28) <i>Muraenidae</i> (4 species) ...	<i>Anguilla reinhardtii</i>	River eel.
	<i>Anguilla australis</i>	Do.
	<i>Muraenesox cinereus</i>	Silver eel.
	<i>Muraena atra</i>	Green eel.
(29) <i>Sclerodermi</i> (3 species) ..	<i>Monocanthus hippocrepis</i>	Leather jacket.
	<i>Monocanthus chinensis</i>	Do.
	<i>Monocanthus ayrandi</i>	Do.

The following is a list of New South Wales edible fishes arranged in the order of their economic value:

Edible fishes of New South Wales, arranged according to their economic value, per species, by I. Douglas Ogilby, assistant zoologist of the Australian Museum at Sydney.

Species.	Common name.	Species.	Common name.
(1) <i>Represented in market every day.</i>		(2) <i>Common in market—continued.</i>	
<i>Gerres ovatus</i>	Silver billy.	<i>Pseudorhombus multimaculatus</i>	Flounder.
<i>Atripis salar</i>	Salmon.*	<i>Synaptura nigra</i>	Sole.
<i>Girella tricuspidata</i>	Blackfish.	<i>Belone ferox</i>	Long tom.
<i>Pagrus unicolor</i>	Schnapper.	<i>Belone gavioloides</i>	Do.
<i>Chrysophrys sarba</i>	Tarwhine.	<i>Anguilla reinhardtii</i>	River eel.
<i>Chrysophrys australis</i>	Black bream.		
<i>Sciaena neglecta</i>	Jew-fish.	(3) <i>Appearing irregularly, often in large numbers.</i>	
<i>Caranx trachurus</i>	Yellow tail.†	<i>Plectropoma ocellatum</i>	Wirrah.
<i>Caranx georgianus</i>	White treevalley.	<i>Priacanthus macracanthus</i>	Red bull's eye.
<i>Seriola lalandei</i>	Kingfish.‡	<i>Scatophagus multifasciatus</i>	
<i>Tomnodon saltator</i>	Tailor.	<i>Scorpiæ equipinnis</i>	Sweep.
<i>Sillago maculata</i>	Whiting.	<i>Hypenichthys porosus</i>	Red mullet.
<i>Sillago ciliata</i>	Trumpeter whiting.	<i>Pimelepterus meridionalis</i>	Drummer.
<i>Platycephalus fuscus</i>	Flathead.	<i>Scorpena cruenta</i>	Red rock cod.
<i>Mugil dobula</i>	Sea mullet.	<i>Scorpena cardinalis</i>	Do.
<i>Mugil peronii</i>	Flat-tail mullet.	<i>Teuthis nebulosa</i>	Black treevalley.
<i>Hemirhamphus intermedius</i>	Sea gar-fish.	<i>Beryx affinis</i>	Nannygal.
<i>Hemirhamphus regularis</i>	River gar-fish.	<i>Otolithus atelodus</i>	Teraglin.
<i>Anguilla australis</i>	River eel.	<i>Seriola hippos</i>	Samson fish.
(3) <i>Common in market.</i>		<i>Pseletus argenteus</i>	Bat-fish.
<i>Lates colonorum</i>	Perch.	<i>Zeus australis</i>	John dory.
<i>Macquaria australasica</i>	Silver perch.§	<i>Scomber pneumatophora</i>	Mackerel.
<i>Ctenolates ambigua</i>	Golden perch.§	<i>Trigla kumli</i>	Red gurnard.
<i>Oligorus macquariensis</i>	Murray cod.§	<i>Sphyræna novæhollandiæ</i>	Pike.
<i>Girella simplex</i>	Blackfish.	<i>Cossyphus unimaculatus</i>	Pigfish.
<i>Chilodactylus fuscus</i>	Carp.	<i>Coris lineolata</i>	Rainbow-fish.
<i>Sphyræna obtusata</i>	Pike.	<i>Odax semifasciatus</i>	Rock whiting.
<i>Myxus elongatus</i>	Tallygalane.	<i>Lotella limbata</i>	Beardy.
<i>Pseudorhombus russelli</i>	Flounder.		

* Only from its great numbers.

† Chiefly valuable as bait.

‡ Comes in large shoals at intervals.

§ First-class fresh-water never in Sydney market.

Edible fishes of New South Wales, etc.—Continued.

Species.	Common name.	Species.	Common name.
(3) <i>Appearing irregularly, often in large numbers—Continued.</i>		(5) <i>Scarce in market—Continued.</i>	
<i>Saurus tumbil</i>	Rauning.	<i>Arrhamphus sclerolepis</i>	Short-billed gar-fish.
<i>Aulopus purpurissatus</i>	Sergeant baker.	<i>Monocanthus hippocrepis</i> ...	Leather jacket.
<i>Clupea sagax</i>	Pilchered.	<i>Monocanthus chinensis</i>	Do.
<i>Clupea sundaica</i>	Maray.	<i>Monocanthus ayrandi</i>	Do.
<i>Clupea hypselosoma</i>	Do.	(6) <i>Rare or accidental in market.</i>	
<i>Muraenox cinereus</i>	Silver eel.	<i>Caprodon schlegelii</i>	Long fin.
<i>Muraena afra</i>	Green eel.	<i>Lutianus macleayanus</i>	Macleay perch.
(4) <i>Common in market, but of little commercial value.</i>		<i>Glaucosoma scapulare</i>	Pearl perch.
<i>Therapon cuvieri</i>	Trumpeter.	<i>Lobotes surinamensis</i>	
<i>Atherina lacunosa</i>	Hardy head.	<i>Histiogaster labiosus</i>	Boarfish.
(5) <i>Scarce in market.</i>		<i>Dinolestes muelleri</i>	Sea pike.
<i>Enoplosus armatus</i>	Oldwife.	<i>Sebastes percolides</i>	
<i>Serranus dæmelli</i>	Black rock cod.	<i>Cybtium commersonii</i>	Great striped mackerel.
<i>Hypeneus signatus</i>	Spotted mullet.	<i>Cybtium guttatum</i>	Spotted mackerel.
<i>Girella elevata</i>	Rock blackfish.	<i>Elacate nigra</i>	Kingfish of West Indies.
<i>Girella cyanea</i>	Bluefish.	<i>Pseudophycis barbatus</i>	
<i>Haplodactylus lophodon</i>	Butterfish.	<i>Arius thalassinus</i>	
<i>Chironemus marmoratus</i>		(7) <i>Fish which never appear in market.</i>	
<i>Chilodactylus morwong</i>	Morwong.	<i>Lutianus fulviflamma</i>	
<i>Chilodactylus macropterus</i>	Jackass-fish.	<i>Therapon richardsonii</i>	Silver bream.
<i>Latris ramsayi</i>	Trumpeter.	<i>Therapon macleayanus</i>	
<i>Prionurus microlepidotus</i>		<i>Gadopsis marmoratus</i>	
<i>Trachynotus russelli</i>	Dart-fish.	<i>Copidoglanis tandanus</i>	River catfish.
<i>Pelamys australis</i>	Bonito.	<i>Cnidoglanis megastoma</i>	Sea catfish.
<i>Trigla polyommata</i>	Flying gurnard.	<i>Galaxias coxii</i>	Mountain trout.
<i>Agonostoma lacustris</i>	Lake mullet.	<i>Chatoessus richardsonii</i>	Bony bream.
<i>Coscyphus gouldii</i>	Blue groper.	<i>Clupea novæhollandiæ</i>	River herring.
<i>Olistherops brunnæus</i>	Herring cale.		
<i>Ammotretis adspersus</i>	Long-snouted flounder.		

Amongst the edible fishes especial mention should be made of the *Beryx affinis*, the "nannygai" of the Sydney market. This fish is often 20 inches in length. It is not only a delicious food fish, but is interesting as being one of the oldest forms of "bony fishes" still surviving.

The "schnapper" (*Pagrus unicolor*) is the most abundant and popular fish in the colony. The flavor is not quite as good as that of some others of the perch family, but it is unquestionably a superb table fish, wholesome and nutritious. It is found on all parts of the Australian coast, but is nowhere more abundant than in New South Wales. It is a deep-water fish and is usually found on or near the rocky points or reefs. The report of the fish commission says that its food is principally the mollusca, living on the rocks. The readiness with which it snaps up bait of the most varied description indicates its omnivorous taste. Like most fishes, it has its periods of migration, and appears in schools. The time of the appearance of the school schnapper is in early summer. It is then believed to be about three years old, the previous stages of its existence being known as "red bream" at one year and "squire" at two years.

Another favorite fish is the "black rock-cod" (*Serranus dæmelli*). It is found on all the rocky parts of the coast, and in the harbors about bold headlands. It attains a great size, not unfrequently weighing 50 pounds.

There are four species of the red rock-cod, four of flat heads, and three of flying gurnets, all of which are excellent table fish.

The "whiting" (*Sillago maculata*). There are four species of the whiting in Australia. The species known as the "sand whiting" (*Sillago maculata*) is one of the best of table fishes, and is very abundant in New South Wales. It is in more general use than the schnapper, and is in the best condition when it first comes in from the sea about the middle of summer. It is caught both with the hook and seine. The color of the "sand whiting" is a white olive marbled with large brown spots. There is a broad longitudinal band on each side of the body. The fins are transparent and the rays spotted with orange. This fish is said to command a higher price than any other in the market. The other species are not so valuable as food. The variety known as the "rock whiting" (*Odax semifasciatus*) is soft and ill flavored, but if cooked when perfectly fresh it tastes fairly well. The "trumpeter" (*Sillago ciliata*) is not so good as the sand whiting. It comes in from the sea a month or two later than the other. The "trumpeter" (*Latris ramsayi*) is also highly prized as a table fish. It is nourishing and wholesome and of delicious flavor.

The "jew-fish" (*Sciæna neglecta*) is common in the Sydney market. It is sometimes five feet in length and is found at all seasons of the year, but is most abundant in the summer. This fish occasionally appears in the Melbourne market and is known there as the kingfish, but it is said not to be abundant in Victoria.

The "Murray cod" (*Oligorus macquariensis*) is the largest fresh-water fish in Australia and is found in the western rivers. It sometimes weighs as much as from 150 to 160 pounds. The name "Murray cod" is applied to two species, *Oligorus macquariensis* and *Oligorus mitchelli*. This fish is of a voracious character and devours every fish or animal that comes within reach of its enormous mouth. The spawning season is in midsummer. The largest fish of this kind are found in the Brisbane River. One described by Mr. Ramsay measured over 6 feet in length and weighed 160 pounds. It is known in Queensland by the name of "groper." The Murray cod belongs to the perch family, and has an oblong body covered with scales. The teeth are villiform. It has one long dorsal fin, eleven rays of which are spinous; the anal fin has three spines, and the tail is rounded.

The fresh-water fish of Australia, with the exception of the "Murray cod" and one or two species of the "cat-fish" found in the rivers west of the great dividing ranges, are very small and far from being abundant. The frequency of drought and the absence of any large rivers are the principal causes for this state of affairs. Beyond the Murray and its tributaries, the Darling, Murrumbidgee, Lachlin, and Macquarie Rivers, fish are seldom seen. The streams beyond this river system are so small as to be unworthy of the name of rivers, and are dried up during the greater part of the year. In the far western country, fish, on the authority of Mr. I. E. Tennison Woods, are unknown.

The "golden perch" (*Ctenolates ambiguus*) is common in the rivers and lagoons of the interior of New South Wales. It is a finely flavored fish, and sometimes weigh 6 or 7 pounds. When fresh its colors are very bright and beautiful. The body is green and golden and the head is a mixture of green, purple, red, and gold.

"Blackfish" (*Girella tricuspidata*) is frequently met in New South Wales and other portions of Australia. It is sometimes 16 or 18 inches in length.

The fresh-water "cat-fish" (*Copidoglanis tandanus*) are also abundant, but there is a great prejudice against them. These fish are, when fully grown, 2 feet in length, very fat, and have an eel-like flavor.

"Australian herring." Count Castlneau has described several species of Australian herring, but he says they are not abundant. The various species of Galaxiidae that have been found are small and scarce.

"Gar-fish." There are two species of gar-fish found on the coast of Australia. The most common species in New South Wales is the *Hemirhamphus regularis*. This fish comes in from the sea in the latter part of the summer to deposit its spawn. It is caught with the net and is found in large shoals or schools.

Several species of bony bream and apogon have been described, but they are scarcely suitable for food.

ACCLIMATIZATION.

Very little has been done in the way of acclimatization of fish in New South Wales. The river trout (*Salmo fario*) has been successfully introduced into Victoria and Tasmania. This fish is occasionally seen in New South Wales near the Victorian border. The Crucian carp, several varieties of gold-fish, and a few perch from European rivers are about the only fishes that have been successfully acclimatized in the colony. The fish commission have strongly recommended the introduction of California salmon (*Oncorhynchus quinnat*) in Australian waters. It is said to be especially adapted to the mild latitudes of this climate.

OYSTERS.

Three or four varieties of oysters are found in abundance in Australian waters. The "mud oyster" (*O. angasi*) is of such superb quality that it has been regarded as identical with that of European seas. The differences are that the valves are dentate at the margin and the sculpture finer in the Australian variety.

The rock oyster (*O. glomerata*) is very abundant on all the coasts of Australia, especially in New South Wales. The flavor is very fine and is free from the coppery taste common to the rock oyster in tropical latitudes. There is another kind also abundant known as the "drift oyster." This variety is believed to be the same as the rock oyster under different conditions. It gets the name of "drift," because it is said that its beds are shifted by the influence of storms and tides. Its shell is oblong in shape and rather heavy. It narrows towards the umbones and widens at the ventral margin. The royal commission in their report deplored the destruction of the natural oyster beds of the colony, and urged their legislature to take steps to remedy the evil. It was said that the process of exhaustion was going on even in the leased beds. The fisheries act of 1881 seems to have accomplished the purpose desired, by making it to the interest of those leasing oyster-beds to conserve, improve, and keep up the supply, instead of continuing the process of exhaustion. The act forbids oysters from being removed from the beds, until they have reached a certain size.

License has to be obtained for dredging, and holders of such license are required to pay for every three bushels of oysters obtained a royalty of not less than 1s. 6d. (36 cents). The license must be

taken out annually at a fee of £10 (\$48.66) or quarterly at a fee of £3 (\$14.60). The penalty for unlawful dredging for oysters is a fine not to exceed £20 (\$97.33) and not less than £5 (\$21.33), and the forfeiture of all oysters found in the offender's possession. Every dredger is required to produce his license on demand. The act also provides for the registration of holders of dredging licenses, and for the marking of dredging-boats.

There are few mollusks in New South Wales, except the oyster, of any importance.

There is a mussel (*Mytilus hirsutus*) common in the harbors, and is eaten by some people, but is not sold in the market and has no commercial value.

CRUSTACEA.

The crustacea are well represented in Australia. The sea-crab, cray-fish, and prawns are especially fine. Some of the cray-fish weigh 6 pounds, and when in season are filled with meat of the most delicious flavor. The cray-fish is usually caught with circular hand-nets. It is in the best condition during the summer.

The prawn (*Penæus esculentus*) is abundant in all the shallow bays and harbors. The fish commission reported that there was little or no danger of this delicious food becoming exhausted for some time to come. It recommended, however, that the same protection should be extended to it as to all other young fish.

IMPORTS OF FISH.

The bulk of tinned or canned fish imported into New South Wales comes from the Pacific coast of the United States, and consists principally of Columbia River salmon, but of the total imports of 4,413,440 pounds of all kinds of fish, including dried, preserved, smoked, salted, and tinned fish, about one-half is from the States.

During the year 1886, 2,083,593 pounds of salmon, valued at \$202,440, were imported, against 2,340,979 pounds, valued at \$247,980, for 1885.

The imports appear, however, to have declined since 1881, and in that year they showed an enormous increase over those of 1880, the figures being 2,381,690 pounds for 1881 and 1,209,033 pounds for 1880. Considerable quantities of dried and salt fish come from Great Britain. All the ling, kipper, whiting, herring, and anchovies are also from Great Britain, but oysters, sardines, mackerel, and cod-fish are from the United States. American sardines are now more popular than any other on account of their superior richness and flavor.

The lobsters imported are both from Great Britain and the United States, those from America being in especial favor. The American lobsters usually sell here from 7s. (\$1.70) to 8s. (\$1.94) per dozen 1-pound tins; cod-fish, salted, dry, and boned, from 4½d. (9 cents) to 5d. (10 cents) per pound; sardines, ¼ boxes, 7s. 6d. (\$1.82) per dozen; ½ boxes, 3s. 9d. (91 cents) to 4s. (97 cents) per dozen; oysters, from 5s. (\$1.21) to 6s. (\$1.46) per dozen 1-pound tins.

The duty of 1d. (2 cents) per pound on imported fish operates seriously against the trade, especially from the United States. When the cost of salmon in America is taken into consideration, it will be seen that 1d. (2 cents) per pound is equal to about 20 to 25 per cent. ad valorem—a very heavy duty, which, together with the profit of dealers, renders the article rather expensive.

This kind of fish is well adapted to the climate and all authorities agree that it is quite equal to the best English salmon.

Quantity and value of fish, principally salmon, imported from the United States into New South Wales for each year from 1877 to 1886, inclusive.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	<i>Pounds.</i>			<i>Pounds.</i>	
1877.....	1,746,737	\$316,425	1882.....	2,315,715	\$317,775
1878.....	1,364,132	276,058	1883.....	2,524,115	351,530
1879.....	1,020,391	108,010	1884.....	3,323,225	402,495
1880.....	1,309,083	161,740	1885.....	2,340,979	347,990
1881.....	2,381,690	322,555	1886.....	2,063,598	302,440

Quantity and value of all kinds of dried, preserved, and tinned fish imported from all countries into New South Wales for each year from 1877 to 1886, inclusive.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	<i>Pounds.</i>			<i>Pounds.</i>	
1877.....	4,307,394	\$909,850	1882.....	4,921,696	\$785,795
1878.....	4,063,590	668,670	1883.....	6,068,198	908,300
1879.....	3,427,626	464,960	1884.....	6,253,642	922,210
1880.....	2,145,508	355,850	1885.....	4,602,580	589,545
1881.....	4,243,765	719,870	1886.....	4,413,441	514,955

Quantity and value of fish imported into New South Wales during the years 1885 and 1886, together with the names of the countries whence imported.

Countries.	1885.		1886.	
	Quantity.	Value.	Quantity.	Value.
	<i>Pounds.</i>		<i>Pounds.</i>	
Great Britain.....	1,945,596	\$284,200	1,969,484	\$254,930
Victoria.....	208,825	29,415	167,199	22,425
South Australia.....	70,519	2,070	70,173	13,185
Queensland.....	8,880	700	10,411	1,200
Tasmania.....	290	35	54	25
New Zealand.....	26,426	3,160	31,245	3,160
India.....	18	5	1,625	320
Hong-Kong.....	72,860	16,340	70,709	13,985
China.....	1,662	450	7,765	1,140
United States.....	2,340,979	347,990	2,063,598	302,440
South Sea Islands.....	240	40	.....	.....
New Caledonia.....	624	130	108	10
France.....	22,441	4,605	9,309	1,730
Belgium.....	2,800	350	.....	.....
Germany.....	181	15	317	190
Norway.....	239	50	439	145

EXPORT OF FISH.

The total export of fish from New South Wales during the year 1886 was 1,135,073 pounds, valued at \$143,475, but of this amount only 8,242 pounds, valued at \$595, consisted of the produce of the colony. The remainder consisted of foreign produce, principally American salmon sent here for transshipment.

Quantity and value of the fish produce of the colony exported for each year from 1877 to 1886, inclusive.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	<i>Pounds.</i>			<i>Pounds.</i>	
1877.....	40,691	\$2,825	1882.....	9,114	\$560
1878.....	20,249	1,915	1883.....	46,854	2,625
1879.....	47,323	2,565	1884.....	30,307	1,645
1880.....	39,644	4,430	1885.....	8,220	535
1881.....	25,229	6,905	1886.....	8,242	595

It will be seen from the preceding table that the export has steadily declined since 1877, and during that year it amounted to 40,691 pounds, valued at \$2,835, and that in 1886 it declined to 8,242 pounds, valued at \$595. This produce was sent to the neighboring colonies, Victoria receiving the largest share.

Quantity and value exported to each colony during the years 1885 and 1886.

Countries.	1885.		1886.	
	Quantity.	Value.	Quantity.	Value.
	<i>Pounds.</i>		<i>Pounds.</i>	
Victoria.....	568	\$35	5,008	\$340
New Zealand.....	5,357	385	2,848	170
Queensland.....	1,296	95	891	85
Fiji Islands.....	1,008	70		

The export of foreign fish produce has also declined since 1877, but this is due principally to the fact that no inconsiderable portion is sent direct to Victoria and other colonies instead of to New South Wales for transshipment as formerly.

Quantity and value of the export of foreign fish produce from New South Wales, principally California salmon, from 1877 to 1886, inclusive.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	<i>Pounds.</i>			<i>Pounds.</i>	
1877.....	988,987	\$174,990	1882.....	840,622	\$129,675
1878.....	592,905	99,680	1883.....	1,196,731	179,920
1879.....	1,197,674	168,810	1884.....	1,383,732	188,175
1880.....	868,072	128,995	1885.....	1,388,498	161,620
1881.....	1,054,494	166,815	1886.....	1,126,881	142,980

It will be seen from the preceding table that the exports for 1886 declined to the extent of 211,162 pounds in quantity and \$18,740 since 1885. There was no falling off, however, in the export of this produce to Victoria, but, on the contrary, there was a decided increase; the quantity exported to Victoria during 1886 being 577,155 pounds, valued at \$66,940, against 453,917 pounds, valued at \$49,650, for 1885. The exports to Tasmania and Western Australia also showed an increase. The decline consisted principally in the exports to Queensland, that colony receiving during the year 1886 258,875 pounds, valued at \$35,955, against 538,499 pounds, valued at \$68,155, in 1885.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, September 6, 1887.

AUSTRALASIAN WOOL CLIP FOR 1886-'87

REPORT OF CONSUL GRIFFIN.

One of the most remarkable features in connection with the Australasian wool clip for 1886-'87 is the decided improvement in the quality of the fleece over that of the previous season. This fact is mainly due to the improved condition of the natural grasses through

the copious rains in almost every part of Australasia. The evil effects of the drought, which seem to have extended over a period of three or four years, almost wholly disappeared except in a few places. The wools of the Riverina district are said to have recovered their former superiority. In some districts the felting power of the present clip has never been surpassed.

The Victorian wools sold in London during the months of November and December attracted no small amount of attention on account of their superb quality and luster. The New Zealand wools, which arrived a few weeks later, were remarkable for their fineness and great length of staple. A marked improvement was noticed in the condition of the clip from every one of the colonies. Mr. F. H. Bowman, F. R. S., a wool expert, who examined the samples sent to the Colonial and Indian Exhibition, expressed the opinion that no previous collection of Australasian wools ever equaled it. He complimented especially the samples of Messrs. R. Goldsbrough & Sons, many of which he said presented the highest state of perfection to which wools are capable of being grown.

He described the New South Wales wools as being better suited for the fine clothing trade, but possessing less luster than those from Victoria.

EXPORT OF WOOL.

The total number of bales exported from all the colonies during the year ended the 31st of May last was 1,161,574, against 1,112,172 for the corresponding period of the previous year.

The subjoined table shows the number of bales shipped from all the colonies up to the 1st of June, 1887, compared with the same date for 1886:

Countries.	1887.	1886.	Increase and decrease.	1885.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
New South Wales	328,441	340,080	-11,649	337,615
Victoria	327,931	309,366	+18,565	326,280
Queensland	68,061	70,801	-2,720	70,380
South Australia	147,554	129,905	+17,649	151,237
Western Australia	16,373	14,343	+2,030	18,222
Tasmania	18,681	16,281	+2,340	17,288
New Zealand	259,573	231,386	+28,187	216,168
Total	1,161,574	1,112,172	+49,402	1,066,115

It will be seen from the preceding table that New South Wales heads the list in the export with 328,441 bales, and that Victoria comes close on to it with 327,931 bales. The exports, however, from Victoria show an increase of 18,565 over those of 1886, whilst the New South Wales exports show a decline during the same period of 11,649. The cause of the decline in the New South Wales shipments was not occasioned by the falling off in the quantity produced, but was due to the navigable condition of the rivers, which enabled the growers to send their wool direct to Melbourne, which, in seasons of drought, finds its way by rail to this market for export. New Zealand increased her exports from 231,386 bales in 1886 to 259,573 bales in 1887.

While the exports of New Zealand are not as heavy as those of Victoria, nevertheless she is the second wool-producing colony in Australasia; New South Wales, of course, taking the first rank. The total annual value of the wool product of Australasia is estimated at \$132,667,145, as follows:

New South Wales.....	\$44,477,768
New Zealand.....	19,398,100
Victoria.....	16,712,545
Queensland.....	9,447,520
South Australia.....	9,117,155
Tasmania.....	2,267,335
West Australia.....	1,246,275

I learn from a valuable table of statistics, prepared by Mr. W. Pulsford, secretary of the Free Trade Association at Sydney, that the wool exports of the Australasian colonies to the United Kingdom during the first four months of the present year amounted to 217,112,197 pounds, against 213,127,593 pounds of the corresponding period of 1886, showing an increase in quantity for the present year of 3,984,604 pounds. Mr. Pulsford, however, states that the increase in quantity was far surpassed by the increase in value. He gives the value of the shipments of Australasian wools to the United Kingdom during the first four months of 1887 at \$48,464,730, while that of the same period in 1886 was only \$41,358,900. The shipments for the month of April alone amounted to \$18,959,040, against \$4,430,150 for the same month last year.

The consignments of New South Wales from the Mudgee district are stated, on the authority of the New Zealand Loan and Mercantile Company Limited, to have been splendidly bred. The same authority states that the well-known Havilah brand brought 12½d. (24½ cents) in the grease, the highest price of the season. The New England and Upper Hunter clips were this year conspicuous for elasticity, fineness, and clearness of staple.

The demand for steamer freights to London has been throughout the season unprecedented, and such as to give rise to some apprehension concerning the future utilization of sailing vessels for the wool trade. Sailing vessels labor under great disadvantages, owing to the times of the sales in London being so fixed that no sooner have steamers completed their loading for one series than shippers find it is then too late to think of catching the next series by sailing vessels, and they consequently have recourse to steamers.

EXPORT TO THE UNITED STATES.

The direct wool export to the United States has been very small. The absence of the usual number of American buyers was noticed at all the colonial sales, especially at Sydney and Adelaide. The few that were present showed no disposition to bid against the French and German buyers for the kinds of wool desired for the American market. Indeed, the only effect of the presence of Americans at all was perhaps to excite the competition between the continental buyers, which was throughout sharp and keen and formed the mainstay of the market. The only direct shipments to America consisted of 14,000 bales from Melbourne and 169 bales from Sydney. The following table shows the quantity of Australasian wool exported di-

rect to the United States during the last four years, the only ports of shipment being Melbourne and Sydney:

Years.	Melbourne.	Sydney.
	<i>Bales.</i>	<i>Bales.</i>
1883-'84.....	14,863	7,712
1884-'85.....	6,631	.....
1885-'86.....	20,161	4,296
1886-'87.....	14,969	189

It was noticed both at the London and colonial sales that, notwithstanding the advance in the prices of wool, the advance was confined principally to crossbreds, medium, and lower sorts. Mediums, particularly at the Sydney sales, were relatively the strongest. The light conditioned wools at the January and February sales brought even lower prices than those of last year. Up to the 14th of February only 1,000 bales were purchased at the London sales for the American market. The reason given for this was that considerable quantities of Australasian wool, purchased last season, were still held over in New York and Boston.

A change for the better occurred in March and April. The advance was particularly marked in extra merinos. The Australasian Loan and Finance Company received a cablegram on the 23d of June last to the effect that the American demand was increasing and that prices were rather higher than at the last sales. Messrs. Dalgety & Co. also received cablegrams to the same effect.

EXPORT TO GERMANY AND FRANCE.

There has been a decided improvement in the direct trade between Australasia and the Continent. The recent establishment of two splendid lines of steamers, under heavy subsidies of the French and German Governments, it is thought will do much towards stimulating this trade. The French line, the "Messageries Maritimes," notwithstanding the steady demand for steamer freight, seldom charged more than $\frac{3}{4}$ d. ($\frac{3}{4}$ cent) and $\frac{1}{2}$ d. (1 cent) per pound. The highest rates reached per steamers during the season were $1\frac{1}{2}$ d. ($2\frac{1}{2}$ cents) per pound. These, however, were exceptional. The German line (the Nord-deutscher Lloyd) received freight at fully as low rates as those of the French line. The direct shipments to Marseilles during the season 1886-'87 were 4,731 bales, against 3,323 bales for 1885-'86. Those to the German ports showed a much greater increase, the figures being 40,968 bales for 1886-'87 and 15,888 bales for 1885-'86. These figures, however, only represent the direct shipments, as considerable quantities of Australasian wools reached the continental countries by way of Liverpool and London.

The subjoined table shows the quantity of wool shipped from Australasia direct to each of the continental ports for the last three years:

Countries.	1884-'85.	1885-'86.	1886-'87.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
Antwerp.....	39,526	15,998	39,947
Hamburg.....	.....	.....	2,268
Dunkirk.....	.....	2,539	2,107
Marseilles.....	0,149	3,323	4,731
Bremen.....	.....	.....	2,458
Total.....	45,675	21,760	47,806

PRICES OF WOOL.

The extraordinary decline in the price of wool last season was attributed to the general depression of trade in the leading articles of consumption all over the world. Such a depression had not been known for a period of fifteen years. As compared with the opening of the previous season the decline in the price of wool was startling. Greasy brought fully 3½d. (7 cents) and washed 4d. (8 cents) per pound less than in 1886. Between the close of the second and the opening of the third series of London sales the reaction set in, and large private transactions took place in London at prices showing an advance of 1d. (2 cents) per pound on March rates. The June sales opened with an advance of 2½d. (5 cents) on greasy merinos and 4d. (8 cents) per pound on second, and the sales closed very firm, greasy merino being 30 per cent. and crossbreds 15 per cent. and second 25 per cent. higher than in April. All through the next interval purchases by private contract were being made, and Greville's Australasian Year Book for 1887 states that the September sales opened with an excitement without parallel in the history of the London colonial wool sales, greasy being 1½d. (3 cents) to 2d. (4 cents) and second 2½d. (5 cents) to 4d. (8 cents) per pound higher than the closing rates of the previous series. Prices, however, were somewhat irregular, and towards the close a slight relapse took place, but there is no doubt that at the highest point of this series the Australasian staple was 50 to 60 per cent. dearer than at the lowest point in April, some five months before. In fact, several large clips of faulty New South Wales wool sold at double the money similar clips brought in the second series when wool was at its lowest.

Crossbreds of the finer quality have fluctuated throughout the season in sympathy with the various changes in the value of merinos. Coarse qualities and Lincoln, on the other hand, have sold steadily at prices showing little variation on those current during the sales of the preceding season.

I am indebted to the manager of the New Zealand Loan and Mercantile Agency Company, limited, of this city for the following table, showing the fluctuation in the prices of these wools:

Fluctuation in the prices at the Sydney and Melbourne sales of Lincoln, halfbreds, and fine crossbred wools for each season from 1882-'83 to 1886-'87, inclusive.

Years.	Lincoln.		Half bred.		Fine crossbred.	
	Prices.	Equivalent in United States money.	Prices.	Equivalent in United States money.	Prices.	Equivalent in United States money.
	d.	Cents.	d.	Cents.	d.	Cents.
1882-'83	6 to 8	12 to 16	8 to 10½	16 to 21	11 to 18½	22 to 37
1883-'84	6 8	12 16	8 10	16 20	10½ 18	21 26
1884-'85	5 8	10 16	8 10½	16 21	11 18½	21 27
1885-'86	6 8	12 16	8 10	16 20	10½ 12	21 24
1886-'87	7 8½	14 17	8½ 10½	17 21	10½ 12	21 24

NUMBER OF SHEEP IN AUSTRALASIA.

The total number of sheep in the whole of Australasia for the present year will, perhaps, exceed 82,000,000, against 76,212,000 for 1886, the principal increase being New South Wales, Queensland, and South

Australia, where the rains have been both frequent and abundant. The number in Victoria will probably be less than last year, when it was 10,681,037. In 1875 the number was 11,323,080, considerably more than in 1886. Mr. Alexander Bruce, the chief inspector of stock for New South Wales, estimates the number of sheep in New South Wales for 1887 at 39,169,304, against 37,820,906 for 1886. Of the number for 1887 Mr. Bruce estimates the merino combing sheep in this colony at 27,915,847; clothing, 10,151,627—total merino, 38,067,474; Lincolns, 221,964; Leicester, 119,590; Downs, 26,444; Romney Marsh, 10,185. Total long wooled, 378,383; crossbreds of all breeds, 722,447. These last are principally long wooled with merino. Total number of sheep in New South Wales for the present year, 39,169,304. The estimated number for Queensland is 9,867,312, against 8,994,322 for 1886, and 6,272,766 for 1875. The number for New Zealand for 1887 is estimated at 17,680,000, against 16,677,445 for 1886, and 11,704,853 for 1875. The number in South Australia will show a slight increase, the figures for 1886 being 6,696,406. Tasmania has less sheep than she had half a century ago, the number being about 1,800,000, but Tasmania pays more attention to the quality than the quantity of wool she is enabled to produce. Her flocks of pure-blooded sheep are amongst the finest in the world. She forwarded to the Sydney sales, which began here on the 5th instant, 2,000 blooded rams, some of which brought as much as \$2,362 per head. The bulk of the stud sheep introduced into New South Wales are from Tasmania. Of the total number (1,653) imported into New South Wales during 1886, Tasmania furnished 1,536; South Australia, 54; Queensland, 32; California, 35. These sheep were quarantined for eighteen days and received one dipping with tobacco and sulphur. The laws of all the Australasian colonies prohibit the importation of sheep and cattle except under the quarantine regulations, and on account of these restrictions the importation of blooded sheep from America has seldom proved profitable to the shippers.

Of the total number of stud sheep brought into New South Wales last year 953 were unshorn and 639 were shorn. After reaching the station these were all examined by the inspectors who were instructed to report on their appearance and the effect of the dipping.

Of the unshorn, 1 ewe died, 35 sheep were injured, and 2 lambs were dead when dropped. Of the shorn sheep, 1 ram died and several were reported injured by the dipping. The inspector thinks that no loss or injury would occur if the sheep were thoroughly dried before removing them. A conference was recently held here for the purpose of considering the propriety of removing the quarantine, and it is thought that some arrangements will shortly be made by the various colonial governments which will allow sheep and cattle arriving here from non-infected ports to be landed upon inspection. Much interest in the subject was taken by the delegates from Tasmania.

The mild and genial climate, together with the unparalleled richness of the natural grasses, have enabled that country to reach such a high degree of perfection in the production of blooded animals. The summers are never excessively hot, and the winters are never cold enough, even on the high table-lands, to put a stop to the operations of the agriculturist.

Western Australia, with a territory larger than that of any of the other colonies, carries very few sheep, the number for the present year being estimated at 1,753,000.

There are very few districts in Australia where sheep will not thrive, except in the tropics and some parts of Western Australia. In fact, throughout the whole of the group the climate is so mild that neither sheep nor cattle require any housing, and can run out all the year round. It is only natural under the circumstances that sheep farming should receive so much attention. Mr. Bowman, the expert to whom I have referred in a former part of this report, says, however, that the wool-growers of Australia cannot keep up their reputation for high-class wools without continuing the introduction of blooded animals from other colonies. He says that—

Certain classes of sheep are more adapted to certain regions of the earth's surface than others, and that in many cases the environments of sheep tend, in the course of generations under special management, to produce a special character, which becomes permanent and may be retained as a pure breed.

He therefore contends that certain characteristics of wool, such as luster in the long-wool breeds, can only be retained permanently by the reintroduction of fresh blood from time to time, and especially in those countries near the equator. He says, further, that a certain degree of temperature and moisture is necessary for its permanency. This luster, he thinks, is retained longer in New Zealand and on the southern coast of Australia than anywhere else. He attributes the deterioration of Australasian sheep in South Africa to the herbage of that country, which is not fitted for the growth of the better class of sheep.

SHEEP-SHEARING BY MACHINERY.

The exorbitant wages demanded by sheep-shearers in Australasia, together with the repeated strikes amongst them and the difficulty of supplying their places, have led to various attempts in Sydney and Melbourne to invent a process for shearing sheep by machinery. Such an invention was for a long time believed to be impossible. Two difficulties at once presented themselves. The first was the employment of some means to control the animal while being shorn, and the second was the construction of the apparatus for shearing it. These difficulties, it is believed, have been wholly overcome by Mr. Frederick York Woolseley, a well-known sheep-grower of this colony. Mr. Woolseley about ten years ago conceived the idea of constructing such a machine, and it grew in his fertile brain until it culminated in the invention which has been so successfully employed at various intervals during the last two or three months at some of the principal wool warehouses in Sydney and Melbourne.

The first public trial of the machine took place in Melbourne, and there were present at the trial a considerable number of sheep farmers and wool brokers from every colony in the Australasian group. All united in the opinion that the machine did the work which its inventor claimed for it in the most satisfactory manner.

The apparatus is a very simple one, being made on the same principle as the cutter of a mower or reaper, and the knives are worked by means of rods within the handles, which in their turn are moved by a core within a long flexible tube, which is kept in a rotary shaft, and wheels driven by a stationary engine. The comb is in the form of a segment of a circle, about three inches in diameter, with eleven conical shaped teeth. Each machine is worked by a shearer, and as he forces the comb along the skin of the animal the fleece is cut. One of the principal advantages of the machine is that it does not

require a highly skilled person to work it. Any ordinary hand on a farm could be taught to use it in a couple of days.

Mr. Bruce, chief inspector of stock, is of the opinion that the machine will soon come into general use. He thinks it admirably adapted to small farms. There has been recently more or less discussion in the various agricultural journals of the colony as to the economy of its use. While all agree that it is a labor-saving machine, it is said that the work can be done quicker by the ordinary process of shearing. The advocates of the machine claim that it effects a saving of fully 10 per cent. The first cost of the machine and the cost of the motive power are more than counterbalanced by the efficiency of the work done by it. For instance, it takes off the whole of the wool at one cut and leaves the sheep skin absolutely intact. It is also claimed that little or no injury is done to the sheep, whereas, by the old method, the animals are not unfrequently fatally injured. Indeed, in many cases, especially when the operation is conducted by unskilled workmen, the floor of the sheep-shed presents the appearance of that of a slaughter-house. It is well enough to remark here that the machine can be run either with a steam or gas engine, or by ordinary horse-power, and that the apparatus does not easily get out of order. All the parts are interchangeable, and in the event of one getting out of order it can be replaced without trouble by another of exactly the same size. Moreover, the cutter which reciprocates over the comb is inexpensive and will shear without sharpening for a long period.

A number of sheep-shearing sheds are being erected in various parts of this colony, especially in the Mudgee district, and on some future occasion I hope to be able to give the results of their operations. Those that I have witnessed at the warehouses of the New Zealand Loan and Mercantile Agency Company certainly did not perform the work quite as speedily as that of the ordinary shearer, but there can be no question as to the superiority of the work done by the machine. The number of sheep sheared at the first trial was at the rate of 50 or 60 a day of ten hours, whereas 80 or 90 is a fair tally of a good hand with a pair of shears, while some of them have gone as high as 150 per day; but, on the other hand, it is claimed that on every sheep shorn by the machine there is a saving, from 4 to 12 ounces of wool.

It has been objected to the machine that it cuts the wool too close to the sheep's back, as those shorn present a uniform pink color from the beginning of the nose to the end of the tail. If desired, however, the machine can leave from one-eighth to one-tenth of an inch of wool by simply changing its adjustment. In no instance has there been any double cutting, every fiber of the fleece being of its full natural length, nor are there any ribs left on the skin or any tufts of uncut wool.

UNITED STATES DUTIES ON WOOL.

The American trade with Australasia is insignificant when compared with that enjoyed by Great Britain. This unfortunate state of affairs is believed here to be principally due to the high protective tariff of the United States, which excludes wool, the chief product of Australasia, from the American market. The people of the colonies have always evinced a strong desire to trade with us, and there is abundant evidence to show that the average Australasian has a decided preference for articles of American manufacture over those

of other countries, but he does not think it right to purchase goods and wares from a country which imposes such heavy penalties upon his own raw products.

The bill introduced into the United States Congress last year providing for the removal of the wool duties attracted no little attention here, and it was fondly hoped that it would ultimately become a law. Indeed, it is said that the sole cause of the failure of the measure was the proposition to admit woollens as well as the raw material free of duty, and that of course secured the opposition of the manufacturers, who were only interested in the admission of raw products. It has been frequently pointed out here that the wool farmers of America get better prices for their wool for a term of years when the duties were lowest, for the reason that manufacturers need many kinds of wool to work up their cloths to an advantage. It is also said that whenever there is a demand in the United States for foreign wools there is also a demand for home-grown wools. The people argue that the United States is the only country in the world which levies a duty upon raw products, and that if the Americans wish to protect their manufactures they should do so by removing the restrictions from the raw materials.

It is further said that the woollen industry of the United States, both on the Atlantic and Pacific coasts, is allowed to languish for the want of cheap wools, which the manufacturers could easily obtain if it were not for the unjust tariff, and that the reason the French and Germans make such superb woollens is because they have access to the Australasian and other foreign wools.

The mill-owners of California have repeatedly stated that the reason they can not make the woollen industry pay on the Pacific slope is because they can not obtain Australasian long-stapled wools to mix with their own shorter growth.

In California the wools are of two growths; one growth is from April to September, and the other from September to April. In Australasia there is but one growth, say of nine or twelve months. Of course manufacturers have an advantage who use the long-stapled wools, for cloths made with them have a smoother and brighter finish, without rough points sticking out, as in goods made of short-stapled wools. With Australasian wools it is contended that California would soon be enabled to produce cloths of better quality than the French or German and at lower prices.

Col. W. Harney, who is largely interested in the woollen industry of San Francisco, says that if it were not for the tariff the Californian woollens would be preferred to all others. In an interview with me in December last he stated that he had ordered several lots of New South Wales wools, which he used to advantage in the manufacture of blankets and other articles. Some of these articles found their way to Sydney, along with some other American importations of the New Zealand Loan and Mercantile Agency Company of this city, and attracted no little attention. Indeed, they were very generally admitted to be superior to anything of the kind ever brought here, the price alone preventing extensive orders for them. Colonel Harney, in his evidence before the Central and South American Commission, which met in San Francisco about two years ago, said :

In California we are prepared to suit every taste if we can get the trade, or the taste of any other nation or people ; that is, we can manufacture anything in the shape of woollen goods that are made by any French or English establishment, and do it successfully

Colonel Harney's views were strongly corroborated by Mr. Donald McLennan and other gentlemen who gave evidence before the commission. Mr. McLennan said :

If we could use the wools of Australasia in connection with our own, it would not only enhance the value of Californian wools, but we could manufacture just as much and so many more yards of goods than we can now; that the extra consumption of those wools would enhance the value of domestic wools: that is, give a larger market to domestic wools to combine with foreign wools.

Mr. Mitchell, the secretary of the Sydney Chamber of Commerce, recently commended highly the views of Colonel Harney and Mr. McLennan, and it is no wonder that such opinions should attract attention in the chief metropolitan city of Australasia, a city offering so many advantages for a direct trade with the Pacific coast of the United States. The fact that the Australasian wool trade with Germany and France is increasing, whilst that with the United States is deteriorating, should be a note of warning to the Americans. If Congress will not remove the duties on wool, it certainly ought to modify the duties on the kinds of wool which cannot be produced in the United States, such as the soft, fine-haired wools of Victoria and New South Wales.

These wools are remarkable not only for their softness and smoothness, but for their elasticity and brilliancy.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Sydney, July 13, 1887.

ARGENTINE WOOL CLIP OF 1886-'87.

REPORT OF CONSUL BAKER.

The Buenos Ayres wool season of 1886-'87 is now just closing, and, though no official returns have yet been published, we are enabled from accounts of shipments to know very nearly how it compares with that of other years. The comparison, though not unexpected, is anything but favorable. The following table shows the exports from this port for the last three seasons from October 1 to June 31, and the different points to which the shipments were made, to wit :

Destination.	1884-'85.	1885-'86.	1886-'87.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
Havre	30,307	10,019	13,131
Bordeaux	2,572	2,448	2,103
Marseilles	154	243	55
Cette	11	64	284
Dunkirk	119,292	126,388	23,131
Total France	152,336	148,167	118,304
Belgium	84,862	73,806	73,823
England	8,633	6,488	2,823
Italy	5,555	8,690	4,099
Germany	57,231	42,823	46,898
United States	4,636	1,464	46
Other places	1,604	798	29
Total export	315,147	284,186	241,518

It will be seen from these figures that the clip of the closing season, so far as heard from, is 42,668 bales less than that of 1885-'86 and 73,629 less than that of 1884-'85. In other words, it is about 24,000,000 pounds less than in 1885-'86 and 45,000,000 pounds less than in 1884-'85, though there are still some small lots to go forward. The amount, however, will not materially change the figures. In my report of the wool exports of Buenos Ayres, of the date of August 4, 1886, published in No. 70 of Consular Reports, I estimated that the deficit of this season, compared with that of 1884-'85, would "be upwards of 75,000 bales, or 45,000,000 pounds." The above table shows how nearly correct my estimate was.

The cause of this falling off in the wool clip of this country, as explained in my former report, was the immense losses of sheep and lambs during the winter of 1886, when not only newly dropped lambs, but a large number of sheep, estimated at 12,000,000, perished from the cold weather and unprecedented storms, foot-rot and scab assisting greatly to swell the destruction.

OUR TARIFF DISCRIMINATING AGAINST THIS COUNTRY.

You will observe from the above table that the amount of fine wools shipped from this country to the United States is annually becoming less. The cause of this is in great part because our tariff unintentionally, but very unjustly, discriminates against such wools from the Argentine Republic in favor of those from Australia, New Zealand, etc.; our system of computing the duties making no allowance whatever for the fact that the dirt and grease in the wools of the Argentine Republic is fully 70 per cent. greater than those of the former countries; this excess of dirt and grease being required to pay the full tariff rates for wool. I fully discussed this matter in my last annual report. The only wools from this country which it is now possible to ship under our tariff are the "Criolla" or long carpet wools of the province of Cordoba, which are shipped from Rosario, and which amount to about 10,000,000 pounds annually.

PRESENT RULING PRICES.

The prices of wools in this port during the last season have generally been such as to give the sheep farmers a quick market for their clips, the purchasers for the most part being experts or "artists," who come here annually from the importing houses they represent on the continent of Europe. What further favored the home market was the premium on gold, the prices in the depreciated paper money of the country fluctuating with the premium. The present ruling prices in this market are as follows:

	Per 10 kilograms.
Extra fine clothing wools:	
In best condition.....	\$4.50 to 5.25
Good condition.....	4.00 to 4.50
Inferior condition.....	2.50 to 3.75
Belly wools.....	1.50 to 2.50
Extra Rioa wools.....	3.40 to 4.00
Criolla or carpet wool.....	3.00 to 3.90

PROSPECTS OF THE NEXT SEASON.

In regard to the prospects of the next season, it is yet difficult to form any satisfactory opinion. Thus far the winter has been mod-

erate, with but little rain. Owing to the latter cause the sheep-runs or "camps" are unusually bare, the pasturage being quite exhausted from the failure of the grass. Thus the sheep are in many places reduced to mere skin and bones; and if there should now be a succession of cold storms, the losses, which are already not inconsiderable, would be most serious. Thus if the flocks manage to get through the winter, there will probably be no deficit next season compared with the present figures; but, if in the present unpromising condition of the flocks, there should be severe weather, we may expect another short clip.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, July 28, 1887.

THE ECONOMIC CONDITIONS OF IRELAND.

REPORT OF CONSUL SCHOENHOF.

My first object and aim in visiting Ireland, was to look up the various industries which were mentioned to me, and of which I had seen samples in the Irish department of the Manchester exhibition: First, linen manufacture; second, woolen and tweeds; third, hosiery; fourth, Irish lace; fifth, poplin; sixth, wood-carving; seventh, pottery.

From the tempting display at the exhibition I was led to believe that I should see very thriving industries. With the exception of the linen manufacture and other known manufacturing branches of Belfast and connecting industries in Ulster, I was, however, doomed to disappointment.

It is useless for me to dwell much on the linen industry of Ulster. It is well known that in Ulster they are foremost in this branch in the whole world. Still I find that the earnings of the people employed in the linen mills in Ulster are far below those of any class employed in the textile branches in England. Mill regulations and working time of course are the same for the whole Kingdom. Flax-breakers, men who have to do very exhausting work, earn from 15s. to 20s. per week; hacklers, from 18s. to 23s.; spinners and girls, from 8s. to 10s.; half-timers, boys 5s. and girls 4s.; and weavers, mostly women tending 2 looms, from 12s. to 15s. By others I was told that the earnings were only, for weavers, 8s. to 10s. and up to 15s. only for the finer goods. Damask weavers, for instance, earn a few more shillings per week. It must, however, be said in this connection that the linen trade suffers from depression. This is partly due to the fact that not so much linen is used, owing to the great cheapening in cotton manufacturing, as was the case in former times, and partly also because the use of brown linen for ladies' dress has ceased through change of fashion, but principally through the great reaction following the immense expansions in the wake of the American war and the cotton famine consequent thereto.

On the whole Belfast did not impress me as being much different from other Irish towns. It looked poor and unsightly, and especially the workingmen's quarters, which could not at all be compared to the comfortable appearance which the quarters occupied by the work-

ing classes of any English manufacturing town present to the visitor at the first glance.

Weaving fine linen is still done by hand-loom weavers and gives remunerative employment to the inhabitants of the surrounding country districts. All linen above No. 1700 and the finer damask and table linen is done on hand-loom. The thread is too fine and brittle and would break if exposed to the greater strain of the power-loom. The earnings of these hand-weavers is considerably above the average given above for power-weaving. The reason for this is, that the younger generation does not take kindly to this occupation, and there is consequently no oversupply of weavers in this branch of the trade, and skilled weavers able to weave fine linen are, therefore, in very good demand.

THE WOOLEN MILLS OF IRELAND.

These mills are occupied mostly in the manufacture of Irish tweed. They make a very good article, which ought to find ready sale in the United States. Lately a more systematic effort has been made to open connections in the States by sending out travelers, and one agent has lately returned placing some very large orders. Some mills, and especially one which I visited near Cork, are as well-organized mills, and work as advantageously, as can be found anywhere. This mill had a fire some years ago which burnt down the old appliances, and the proprietors have built up since with the best improvements. With the cheap labor they command they ought to be able to undersell any competitors, but while well occupied it cannot be said that they are very formidable opponents to competitors in England or Scotland.

The wages I have noted down are: For men, from 12s. to 14s., 14s. being about the limit of the best men; spinner girls, 8s. to 10s.; children, 5s. to 6s., and weavers earn from 10s. to 12s. The mill, employing about 750 hands, pays out about £400 per week in wages. This includes overseers, etc., which is a trifle over 10s. per head. A weaver on an average turns out about 144 yards in a fortnight, I am told, of the better tweeds, and about 180 yards of the cheaper ones, single width, as all Irish tweed-weaving is counted, although two widths of the 27-inch, or 54-inch single width, are woven on one loom.

I expect to return to this subject and its application to general economy of production in a later report. I allude to it now only in the general reference I am giving to Irish industries. With these advantages of cheap labor and great eagerness for finding opportunities to work all over Ireland, with an intelligent population, quick to take up and learn all manipulations to which they are set, with the excellent quality of the wool which the Irish sheep produce, one should expect to find quite a flourishing industry there. But, alas! there are no more than half a dozen prosperous mills in all Ireland, employing in all but a few thousand hands. On the other hand, I found a great many mills closed up for want of orders.

I don't want now to enter into a searching inquiry and satisfactory explanations of the reasons which lead to this phenomenon. I can not, however, restrain myself from alluding to the time-honored axiom of a certain school of political economy, maintaining that when wages are higher in one country than in another, it is invariably that the low-wage country draws trade away from the high-wage country

and curtails employment in the latter, and thus reduces wages to the standard of the competing country. The low wages of Ireland, subject to the same fiscal law of England, ought long before this have destroyed the woolen industries of England and built up a flourishing trade for the "Emerald Isle," if this theory had any practical foundation in the world of facts. The more so as capital and commercial enterprise in England are wielded by business men, and not by philanthropists; by men who have an eye to money making more than to finding employment for home labor.

There are now only 5 or 6 large mills in Ireland, I am told from creditable sources, in the manufacture of woolen goods able to compete and hold their own and make any money at all. These work with improved machinery. The others are small country mills and have great difficulty in getting along. In passing I found a number of them closed up. They were pointed out to me by the drivers, who told me that mills could get no orders, and the country people were too poor to buy anything. One mill, near Kenmare, working 12 hands, was shut, being "overstocked," as I was told. A mill of 12 hands overstocked! Some of these work for local commission men, or take the wool from the farmers and charge so much per stone. These pay very small wages and get smaller work done yet. House-spinning is, however, very largely carried on yet by the women in their country homes, carding, and even dyeing their own wool and sending it to the weaver.

There are whole districts where farmers, so called, with a few acres of land, are weavers, having one hand-loom in their little mud cabins, on which they earn a few shillings a week in winter time by weaving the homespun yarn for the people living around the neighborhood.

I visited one small weaver between Kenmare and Glengariff. He was weaving a very good stout tweed then, for which he had received from his neighbor's wife the black and white yarn, spun by herself, the natural colors of the wool. He received 4d. per yard for weaving 27 inches wide, of which he can make 5 yards a day; but as he has to do the mounting of the loom and all the other attending work, some deductions have to be made from that. Of flannel he can make about 10 to 12 yards, for which he gets 2d. a yard. In this way the farmers use up most of their wool themselves. As there is so very little traffic and other means of employment to bring money within their reach, they are all compelled to use and wear their own homespun, and consequently traffic and trade is about as dead and dull in this part of Ireland as manufacture. This weaver was an old man of about 60. He lives in a hut 10 by 8 feet, which is nearly all filled up by a loom older than he himself, having been inherited from his father. It is about as primitive as the looms I have seen at the last year's Colonial Exhibition at London, employed by the Hindoo weavers. For sleeping room he has placed bare sticks, cut from the trees, across the wood-work over his loom, upon which he sleeps on a bed of straw, covering himself with old bags or what he can find. The flooring is the mud floor of the soil, and the place is warmed up with a little smoky peat fire on the floor, with an escape for part of the smoke through a flue answering for a chimney. He was a cheery old fellow, in fact, like most of the poor people in Ireland whom I met. In his younger years he was a bricklayer in England; now he has returned to Ireland and is well satisfied if he can ply his old trade and earn enough to keep him in bodily repair. Work, how-

ever, only lasts for him from summer until after Christmas, and very little work can be found for the first six months of the year, which is the case with all hand-loom weavers. Most of them, however, as said above, have a little land to keep them supplied with the merest necessities for these dull months in the weaving trade, and don't entirely depend on their looms for a living, as this old man does. I asked about his diet and he gave me a piece of bread made of yellow meal, which I have been shown by nearly all the poor people and small farmers whom I visited.

As to tea, coffee, or beer, and meat [he said] we know nothing at all of that. Cold water is what we drink and yellow meal we eat. If I have 2 ounces of tobacco a week I am very happy.

He pays no rent, as his neighbors, also very poor people, gave him the little shed which he occupies free of charge. I find more charity and kindness among the poorest people towards their kind than among any other class in life.

In Ulster I found a good deal of hand-loom weaving in woollen goods ruling yet, especially on comforters, spreads, and blankets. It is found that it can well stand competition, and on very favorable terms too, with mill work and power-looms, for reasons easily demonstrated, but which explanation I have also to reserve for another part.

One weaver whom I visited at Newtonards, near Belfast, a scarf-weaver, earns about 9s. per week. Out of this he pays 1s. 6d. for house-rent, 1s. for coal, and 1s. for tobacco. They were husband and wife and had no children. He has, however, even with these scanty earnings, not full employment the whole year round, at best only ten months.

Three or four years ago his earnings were nearly double. The cause of this great decline is partly due to the greater competition, but principally to the action of middle men.

He is making the work for Glasgow manufacturers; that is to say, merchants. These "manufacturers" will give out the wool and stock to agents, who distribute it by giving it to whomsoever will do it the cheapest. While the hand-loom weavers in and around Glasgow will get nearly the full price, as formerly, the poor weavers of Ireland don't get more than half of their former earnings, the other half going to the subagent in Ireland. The reason is, that labor in Ireland is not organized, and that the poor people fear that if they dare to do anything in organizing and resisting this state of things the agents would give them no work at all; consequently they offer no resistance. Too poor to strike and too demoralized and timid through poverty and fear. They were a very nice class of people, and talked very cleverly about their condition and conditions in Ireland in general, and, though perhaps not more intelligent, they are more prosperous than their fellow-beings in the south and west of Ireland. The wages of other members of the family contributed to this, in their individual case, the wife earning about 2s. 6d. per week in winding the yarn for her husband, and, besides this, they get £8 per year for doing the cleaning work of the national school and the church. This makes them quite comfortable, comparatively speaking.

A small factory in the same place, which I visited, occupied in the manufacture of blankets and bed-quilts, employs about sixty or seventy outside hand-loom weavers the year round.

This branch I found fairly prosperous; a good deal of their manufacture goes to America and Manchester. As for Ireland, they tell me that most of the work they do for Ireland goes to "homes and poor-houses, as others are too poor to give out much work, if any."

This was told me in Ulster, the prosperous part of Ireland.

This is about all that can be said about the woollen industry of Ireland. In Cork and neighborhood I found two cotton mills. Fine places from the outside, but closed up and out of employment for want of orders.

Flour mills found in different places out of use on account of the competition from America, a competition which they were not able to sustain.

And still all these poor people would be happy and contented if employment could be guaranteed to them for the year round at 1s. 6d. to 2s. per day, and they can not find it. If they have it, they can not maintain it against labor of from 5s. to 10s. a day 4,000 miles away.

HOSE MANUFACTURE AT BALBRIGGAN.

This mill is justly renowned the world over for the superiority and fine quality of its goods. That most all manufacturers of hose of a superior finish have appropriated its name and trade-mark is the best proof of the excellence of its work. This injurious and not very honorable competition has lately been stopped by the passing of the new trade-marks bill.

One might have supposed that this industry would have been a flourishing one in Ireland, but in spite of the great exertions made by its manager and owner, Mr. Whyte, it has not yet attained to any very formidable figure in the amount of its sales, although it is constantly increasing and enlarging, and under the workings of the new bill it is hoped and expected that it will gradually become a very large industry—a thing greatly to be desired and to be wished for by all who believe that excellence of work ought to be fostered and encouraged by all possessed of a cultivated taste.

The present output, if I remember right, was given to me as about £20,000, half of which goes to America.

The mill had a fire some years ago which set it back considerably. But this is probably the cause of a new era in its history. New machinery has been put in, and the concern becomes more able to drive all competitors, who have adopted and copied their style and name, out of the field.

Here, as in so many parts where I made investigations as to the reasons of the difficulty or difficulties in competition, I have met with the typical answer, "cheaper labor in Germany," which seems now the bugbear of the industrial world; but when I inquired about the price of labor, etc., and other things I was easily able to convince my informants of the fact that labor was certainly not much cheaper in Germany than it was with them, and that other reasons must be sought in a different direction.

I find here labor was paid considerably less than in Nottingham, and even less than in Chemnitz according to the statement of the proprietor, in a great many branches of work. The whole basis of work prior to the fire, however, was such a costly one that it certainly could not maintain itself against more improved methods adopted by other more successful competitors. So, for instance, a great deal of work was still performed on hand-frames, doing one at a time in the

very finest numbers and two in the fine medium numbers by one frame-handler. They have now introduced an improved "cotton-frame," and here I saw one man and two boys manage 2 frames, with 12 hose worked at one and the same time on each frame, or 24 on both. The man on the cotton-frame earned about £2 per week and the boy helpers an average pay of 12s. each., while the man working a hand-frame would not get much more than 15s. per week. But it is apparent that the man earning £2 does much cheaper work than the one earning only one-third his wages.

It is evident from this that in making comparisons as to the relative influences of high wages upon the competitive capacity of the industries carried on by individual countries among their own people and between different nations, they must first of all study the means and methods adopted and applied before they can ever venture to suggest any argument based thereon.

Girls and embroiderers employed by the Balbriggan hose manufactory earn from 7s. to 8s. per week—a neat and nice employment. It is difficult, however, to keep them at home when they have become practical and are well trained to the work, as they are very quick at leaving and going to Nottingham, where they earn 12s. per week; also showing that, if anything, cheap wages are in favor of Balbriggan and not against it.

One of the main features adding to the greater difficulties of Balbriggan against other hose-manufacturing centers, and probably the determining one, is a freak of that powerful regulator in the dry-goods world, "fashion." When white stockings were worn, fine and high-priced goods made at Balbriggan found ready sale and they could sell all they could produce. These fine goods were all made on fine numbered hand-frames by expert hand-frame weavers. A good many of these goods went to America, many of them as high as 140s. or \$35 per dozen. Since, however, fashion changed into colored goods these high-priced fine white goods found no sale, or only to a very limited extent. Even the very richest, with whom, however fine an article, the high price is frequently the greatest inducement to its purchase, ask now for cheap colored hose, where fancy directs a frequent change and selection of new and varied patterns and designs. They naturally do not want goods made to last, as after a few washings they wish to change for new varieties coming into the market.

But having detected a new system of manufacture and adapted themselves to the new demands, both in coloring and dyeing, and with the new protection granted to them by the law in guarding their well-earned reputations against infringements, it is to be hoped that at least this industry will in a very short time stand upon more prosperous ground than it ever was placed before.

IRISH LACE.

Lace making in Ireland has about the same story to chronicle as the other industries mentioned. Its reputation is more extensive than its realities.

Much interest was manifested by benevolent people some forty years ago, at the time of the great famine, to give heart and impetus by the establishment of schools and the creation of agencies for the distribution of the work of the lace makers among the trade.

At one time a considerable activity was displayed and quite an active trade done in Irish lace with fair employment for the lace

makers. Some years ago it was calculated that no fewer than 1,500 persons were employed in the city of Limerick alone. It is said now that no more than 300 are employed at the present time. When the demand for lace was at its highest good lace makers could earn as much as 2s. 6d. to 3s. a day. At the present time the very best do not make more than 8s. and many not over 2s. per week.

Mr. Ben Lindsey, of Dublin, who has interested himself very much in the effort to raise the efficiency and skill of lace makers and in the improvement of designs, and who collects and distributes commercially three-fourths of the work of the lace makers of Ireland, says that at one time he employed nearly 3,000 lace makers, while at the present time he has not work for more than 500.

To this sad state of affairs contributes primarily the decline in the demand of lace generally, attributable first to the influence of fashion, and then to the large expansion of, and the great improvements made in, the manufacture of machine-made lace.

When we consider, however, that the classes who were in the habit in former times of wearing real lace are much more numerous now than, say, twenty-five years ago, which will make up somewhat for decline through fashion's influence, and that up to this time when inclined to wear lace would not wear imitation lace, then we may say that the latter objection does not hold out very strongly. Still I admit that the demand for real lace is not now what it used to be.

But lace making in Belgium and in and around Brussels is comparatively active even now and gives employment at fair wages to the poor people and peasantry around. This is due to the much greater and more systematic efforts of the Belgium Government in establishing schools for the propagation of artistic notions of lace designing, which has brought the present productions of Brussels lace makers far above in beauty and perfection of design from what I remember it to have been in Germany some thirty years ago. It is certainly far ahead of the old Brussels lace and Point de Brabant, largely sold then. The same can be said of the lace makers of the Silesian Mountains, in Germany and Austria, where the lace industry of the Erz-Gebirge, at one time in flourishing condition, became nearly extinct. The Government of Austria helped them by establishing industrial schools, and the improvement in design and quality of the lace became so apparent in consequence thereof that the industry took a new start, and although not so well employed as in the time of its greater demand, still gives the poor people some kind of employment and enables them to earn enough money to bridge over the frequently occurring starving periods to which these poor mountain dwellers are often exposed.

The designs of Irish lace and the whole workmanship of the many numerous kinds which I have examined are so poor and unartistic that few people would wear them if it were not to buy them as a kind of curiosity, for charity's sake, or as a reminiscence of a visit to Ireland. True, the art schools at Dublin and Cork give instruction in lace designing, but I am told that only the wealthier classes practice there, more for their pleasure and enjoyment. The poor lace makers live in the country and are not benefited or reached by the city schools.

IRISH POPLIN.

If poplin manufacture is not a flourishing industry the fault is not with the workers or the manufacturers. At one time when trade was

good and the demand for poplin very high, the manufacturers were hardly able to fill the orders, and high wages were earned by the work people. Now the trade is at a very low ebb. But of late a slight improvement has taken place, due largely to the efforts made by the court circles and the aristocracy to bring the demand for poplin again forward by wearing poplin at court and other dress occasions; but still at the present time there are not more than 100 looms employed on poplin weaving in Dublin and about 50 more outside. The weaving is all done on hand-loom. The silk used is all pure silk without any loading in dyeing. The strain is too great on the silk in poplin to allow loading, which must always have a tendency to weaken the fiber.

The dyeing is all done in and around Dublin, and the colors are as fine and rich as I have seen dyed in any dyeing establishment which I have visited during my round of inquiry in Europe. The same must be said about the wool dyeing of the "weft," for which Australian wool is used.

The hand weavers can make of the cheaper qualities about 8 yards a day, and of the better qualities, satin striped, a very beautiful article now coming into fashion, they can make from 3 to 4 yards. For dyeing they pay from 2s. to 2s. 6d. per pound, and for the cheapest colors (white) as low as 1s., pure dye. The average, however, is from 2s. to 2s. 6d., a higher price than for dyeing paid in New York and neighborhood. Here only 14 ounces is returned, which is 2 ounces less than unboiled weight. The dyeing, however, is much, finer and richer in Dublin. How much the water and how much skill is chargeable for this result I can not say at this juncture.

The weavers and people employed are all old hands, who have been in the employ of the firms ever since they entered the trade. They always stand in current account with the firm who employs them, which allows them to draw money in dull times, when there is no work. This the weavers invariably make good when the work commences again. A silk-weaver's society holds itself responsible for the debts of any weaver against the firm employing him, if the weaver leaves the firm on his own account, but if the weaver be dismissed by the firm, the firm has no recourse to the weaver's society for any balances that may be due by the weaver. The work people rarely find employment for their own family in the auxiliary operamarket of this industry, and if work is flush very fine aggregate earnings have been realized. At the present time very seldom more than one themselves only has employment.

But has realized. At the present time very seldom more than one themselves only has employment.

WOOD CARVING.

one of the industries intended to give employment to and the poor people, who in winter time, at least, have support. Considering that this industry is carried on

Lace making have very little means of instructing themselves and the other industriartistic propensities, some very fine pieces are produced than its realities.

Much interest was all self-taught, and principally go back to the old years ago, at the time we see in the old monuments handed down to by the establishment of

distribution of the work of the close relationship of their archaic de-

At one time a considerable for instance, in the old Scandinavian and active trade done in Irish I have seen in the South Kensington Mu-

seum carvings on a war canoe from New Zealand, closely resembling the serpentine interlacings of Celtic and Scandinavian ornamental carvings. This carries a certain amount of interest with it, and attracts many buyers on account of the originality of the work. The treatment of the human figure and other designed parts, but principally the human figure, leads us back by its stiffness and want of proportion to the earlier Romanesque, and the whole character of the work reminds us of that early period of mediæval times. But still all this gives it a certain charm, and I am sure more of a trade could be done, especially with America and its many Irish people, if properly cultivated. The material employed is black-bog-oak wood. It is essentially a house industry; the people all work in their houses and are all self-taught. No one of them ever apprenticed. There seems to be a kind of latent talent in them for this kind of work. This employment is also a very precarious one, and finds occupation only in summer time, when tourists abound in Ireland. They may be said to be fully employed from July to October, while from October to January very little work is found for them, and from January to July only such work as those are willing to put in operation who can afford to work up a little stock for the busy season.

I doubt whether more than 200 people in all Ireland find employment in this industry.

BELEEK POTTERY.

This is an industry which, in Irish parlance, does not exist.

It has also grown out of existence, and the place where it stood knows it no more.

J. SCHOENHOF,
Consul.

EUROPEAN CROPS.

REPORT OF CONSUL-GENERAL JUSSEN.

On the 29th and 30th of August, an international seed and grain market was held in the city of Vienna, and I transmit herewith the data furnished by the reports and discussions of this international convention.

Owing to the fact that some time before the date of the convention it was definitely ascertained that the home demand of all European countries (Great Britain excepted) would be covered almost exclusively by their respective harvests, and that consequently the business to be transacted would be of a very limited extent, the attendance was not as numerous as in former years.

The following countries, however, were represented, and full reports were made as to the harvests of each of them, viz: Austria-Hungary, Prussia, Saxony, Bavaria, Baden, Württemberg, Mecklenburg, Denmark, Norway, Sweden, Italy, Switzerland, Holland, Great Britain and Ireland, France, Roumania, Servia, Egypt, and British India.

AUSTRIA-HUNGARY.

Wheat.—The yield of this cereal in Austria-Hungary for the year 1887 exceeds the usual average yield from 11,500,000 to 12,000,000

hectoliters (1 hectoliter equal to $26\frac{1}{2}$ gallons or $2\frac{3}{4}$ Winchester bushels).

The weight per hectoliter exceeds the normal or average weight from 4 to 6 pounds.

The total wheat area in Austria-Hungary comprises 4,070,040 hectares, of which 2,888,266 hectares are situate in Hungary and 1,181,775 hectares in the Empire of Austria.

The total yield of wheat for 1887 in Austria-Hungary is estimated at 61,000,000 hectoliters; the average yield in former years having been about 49,000,000 hectoliters, of which 35,500,000 hectoliters were harvested in Hungary and 13,500,000 hectoliters in Austria. The convention estimates that the excess in 1887 over the average yield of wheat amounts in Hungary to 26 per cent. and in Austria to 16.6 per cent.

The total yield of wheat in Austria-Hungary during 1887 in bushel amounts to 177,000,000.

Rye.—The yield of rye in Austria-Hungary for 1887 exceeds the average yield about 2,000,000 hectoliters. The average yield being 42,000,000 hectoliters and the yield for 1887 about 44,000,000.

Barley.—The average yield of barley in Hungary is 15,500,000 hectoliters, and in Austria 16,500,000, or together in Austria-Hungary 32,000,000 hectoliters. The yield for 1887 exceeds this average by from 3,500,000 to 4,000,000 hectoliters.

Oats.—The average yield of oats in the whole monarchy is about 51,500,000 of hectoliters. The yield for 1887, however, falls short of this average by about 1,500,000 to 2,000,000 hectoliters.

The export capacity of Austria-Hungary was estimated by the grain congress, upon the basis of the foregoing figures, as follows:

	Meter-centners.
Wheat and flour.....	9,000,000 to 10,000,000
Rye.....	500,000
Barley and malt.....	8,500,000 to 21,000,000

The yield of oats, however, is hardly sufficient to cover the home demand.

Corn.—Corn is raised only in very small quantities in Austria, but in Hungary it is cultivated to a considerable extent. The yield throughout the monarchy will not be up to the usual average.

PRUSSIA.

Rye has yielded very nearly an average crop; wheat about 2 per cent. more than average. Barley is of excellent quality, but the yield somewhat smaller than the usual average.

The crop of oats is poorer than that of all other grains, in sharp contrast to the previous year, when this grain surpassed all others in quantity and quality. The prospect for potatoes is not very promising.

PRUSSIAN SILESIA.

Wheat has yielded a full crop; quality excellent; rye about 90 per cent. of the usual average; barley about 5 per cent. more than the average for the last ten years; oats about 90 per cent. of the usual average.

SAXONY.

Wheat yields from 100 to 105 per cent. of the usual average; rye from 95 to 100 per cent.; barley and oats 90 per cent.

BAVARIA.

Wheat yields from 120 to 125 per cent of the usual average; rye from 118 to 120 per cent.; barley from 105 to 115 per cent.; oats from 70 to 80 per cent.

BADEN.

The wheat crop is excellent in quality and quantity. Rye is excellent in quality, but less in quantity than wheat. Barley yields a middling crop only, as well as to quantity as quality. The oat crop is small. Wheat 100, rye 85, barley 90, oats 65 per cent. of the usual average.

WÜRTENBERG.

The yield in all cereals is only 80 per cent. of the usual average but excellent in quality.

MECKLENBURG.

Rye yields 85 per cent. of usual average. Wheat is most excellent in quality and yield; is 105 per cent. of usual average. Oats only about 83 per cent., and barley about 98 per cent.

DENMARK.

Wheat promises well, and the yield is estimated at 100 per cent. of the usual average. Rye only 85 per cent. Oats not more than 80 per cent.

NORWAY AND SWEDEN.

Rye is estimated at 85 per cent. of the usual crop. Wheat at 100 per cent. Oats about 95 per cent.

UPPER ITALY.

Wheat crop, poor in quality, will yield hardly 85 per cent. of usual average. The total wheat crop of the whole of Italy is estimated at only 90 per cent. of the usual average, or at 42,334,800 hectoliters, and the import demand of the country will amount to about 10,000,000 of hectoliters. Corn will yield a full average crop, and the country will doubtless have a surplus for export. Rye and oats yield 125 per cent. of an average crop.

MIDDLE ITALY.

Wheat yields 75 per cent. of the usual average. Oats and rye only 60 per cent. Corn is in excellent condition and promises an unusually large yield.

EASTERN ITALY.

Wheat will yield 10 per cent. more than the average, but the quality has suffered by heavy rains in June and July. Corn is in excellent condition; prospective yield very large. Oats and rice a middling yield.

SWITZERLAND.

Wheat excellent in quality; yields 110 per cent.; rye 100 per cent., and oats 85 per cent. of the usual average.

HOLLAND.

Wheat 100 to 105, rye 110, barley 100, oats 85 to 90 per cent. of usual average.

FRANCE.

The wheat crop of this year is estimated at 167,000,000 hectoliters, being 105 per cent. of a good middle crop. It is stated, however, that a considerable quantity of wheat must be imported by France to cover the home demand, because the quantity in store is very limited. Rye less than an average crop. Rye and oats have suffered by drought, and the yield is very small, and much less than the usual average.

RUSSIA (PODOLIM).

Wheat from 95 to 100 per cent. of the usual average. Rye from 90 to 95 per cent. Barley 100 per cent. Oats promise a good yield.

CONGRESS POLAND.

Wheat 100, rye 105 to 110, barley 100, and oats 105 per cent. of the usual average.

MIDDLE RUSSIA.

The yield of all cereals is most excellent in quantity as well as quality.

NORTHERN RUSSIA.

Wheat and rye 95, barley and oats 90 per cent. of the usual average.

ROUMANIA.

Quality of all cereals good; quantity about the same as last three years. On an area of 880,000 hectares, the yield of wheat is estimated at 22,000,000 hectoliters. 190,000 hectares yield 5,000,000 hectoliters of rye; and 700,000 hectares yield 38,000,000 hectoliters of barley.

SERVIA.

Quality of wheat good, being 74 to 78 kilograms per hectoliter. Rye varies in quality. Oats poor. Corn suffering with heat and want of moisture. Wheat yields 140 per cent., barley 100 per cent., corn 100, and oats 90 per cent. of usual average.

Prunes promise a good yield in spite of the great heat, but are not as good in quality as last year. The heavy prunes of last year, of which from 70 to 80 weighed a half kilogram, will not be produced this year.

GREAT BRITAIN AND IRELAND.

Wheat.—An average crop of 32 to 37 bushels per acre is expected, against a yield of 26.8 bushels in 1886, 31.24 bushels in 1885, and 29.90 bushels in 1884.

The total yield is estimated at from 9,500,000 to 10,000,000 quarters, so that, after deducting the seed, 8,500,000 to 9,000,000 quarters there will be left for home consumption, and the importation of from 16,500,000 to 17,000,000 quarters will be required. The English wheat in store is believed to be very nearly exhausted and the foreign wheat

in store in England quite limited. Barley will yield 10 per cent. less than the usual average; oats 15 per cent. less; and beans and pease from 40 to 50 per cent. less. Potatoes are healthy, but the crop will be small.

EGYPT.

Wheat of excellent quality and abundant quantity. The export of wheat has already reached 80,383 ardeb against 30,436 in 1886. The total yield in 1886 was 92,710 ardeb, and 72,436 ardeb in 1885. The estimate for this year is: Wheat, 95 per cent.; beans, 90 per cent.; corn, 85 per cent.; barley, 80 per cent.; and lentils, 80 per cent. of usual average.

BRITISH INDIA.

The area cultivated in wheat is estimated at about 26,000,000 of acres, and the average yield of wheat at 7,135,000 tons. The yield for 1887 is estimated at 6,390,695 tons. From January 1 to June 30, 1887, British India exported to Europe 9,679,516 cwts. of wheat.

THE HOP CROP OF 1887.

The exportation of certain qualities of hops from Europe to the United States has of late increased to a considerable extent. The increase from Austria-Hungary alone, during the year 1886, over the previous year, amounted in declared value to \$66,257.69. The total amount of hops exported from Austria-Hungary to the United States in 1886 amounting in declared value alone to \$188,915.54, as shown by the last annual report of this consulate-general.

A specified report as to the hop crop of the current year must therefore be of great value and importance to the American consumer.

The following data are collected from the several reports upon the hop crops of Europe presented at the grain congress at Vienna.

The yield of the hop plant in Bohemia promises to be excellent in quality and quantity.

In Upper Austria and Styria the prospects are less flattering. Upper Austria will reap but half a crop, the drought having injured the plant very seriously, and in Styria the yield will not be much better.

Galicia expects a good middle crop.

The reports from the German Empire, where until now an average crop was expected (about 500,000 centners), are less favorable than they were a short time since; the drought begins to show its effects. In several regions of Bavaria, Baden, and Posen complaints are heard of copper rust (*Kupferbrand*).

France will have a small yield and Belgium a weak half yield.

In England the hop-yards have been much injured by insects during the present year, although some districts were free from this plague. Until recently the English estimates varied between 450,000 to 500,000 cwt., but it is quite probable now that even the first figure is too high. The state of the weather for the next four weeks may diminish the hopes of the English hop planters considerably. At any rate the home consumption of England, amounting to 650,000 cwt., can not in any event be covered by the home yield.

These estimates are one and all based upon the hope that the next weeks will bring ample rains, but if the hot and dry weather should continue, there is every prospect that the yield will fall far below the

present estimate. On the whole the several reports agree that even under the most favorable circumstances as regard the weather from now until the hops are harvested, the crop will fall far below that of last year.

The following estimates of the probable yield of the several countries, based upon the present condition of the hop plant, were reported by the firm of Gütermann Söhne, of Saatz, Bohemia:

	Meter-centners.
Austria-Hungary	75,000
Germany.....	245,000
Belgium.....	30,000
France.....	18,000
Russia (Russia consumes 20,000 meter centner).....	10,000
Holland and Sweden (about).....	5,000
The countries of the European continent.....	383,000
England (about).....	190,000
Together	573,000
Consumption of the European continent (estimated).....	315,000
England.....	825,000
Total European consumption.....	640,000

To cover this deficiency, amounting to 67,000 meter-centners, Messrs. Gütermann Söhne rely on a surplus in the United States of about 50,000 meter-centners out of a prospective total yield of 150,000 meter centner and on old stock in store.

Since the presentation of these reports the weather throughout Europe has up to this date continued hot and dry, and it is quite evident that unless favorable weather sets in the estimates above reported will not be realized by the actual yield.

EDMUND JUSSEN,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, September 10, 1887.

THE ITALIAN SILK CROP OF 1887, AND AMERICAN PURCHASERS.

REPORT OF CONSUL CROUCH.

This year was marked by an unusually late spring and prolonged inclement weather, which delayed greatly the beginning of the bacological campaign. In fact, as late as April 19 no one thought of putting the "seed" to incubation, on account of the backwardness of the mulberry trees in budding. All during the latter half of April snow and hail storms were reported from the various localities of Northern Italy, and great damage to the mulberry trees was feared; but fortunately, as it turned out, the fears for the most part proved unfounded.

The first seed were put to incubation in Northern Italy about the end of April, that is, at least two weeks later than in preceding years. In the early days of May most of the seed had already been put to incubation. In Central and Southern Italy, always in advance of

Northern Italy, the worm in a few instances was already hatched. During May the weather was fairly favorable, although in some localities the mulberry trees were still very backward, and the course of affairs was on the whole satisfactory. The last week of May and the first of June again brought cold weather and storms, and great apprehensions were entertained of evil effects on the worms. However, the superior quality of the seed and the skill of the growers brought them through with very little damage.

The following weeks brought an abrupt change of weather, which became unusually hot. The second week in June is the critical period, for the worms then begin to climb, and the various diseases manifest themselves. This, in spite of the unusual heat, was safely passed, the worms being apparently in excellent condition. In Southern and Central Italy cocoons were already beginning to appear. During the rest of the month the weather remained fine but hot. The spinning of the cocoons proceeded regularly and in general to the satisfaction of the growers. By the end of the month the harvest was about finished, and the result, in spite of unfavorable weather and the fears entertained at various periods, seemed satisfactory to all, apparently surpassing the unusually large crop of the preceding year. The result of this belief was the low price paid for cocoons at the opening of the earlier markets. Very soon, however, the opinion changed, and prices took a sudden and decided rise.

I have followed somewhat in detail the course of the harvest and the changes of the weather, for therein lies the explanation of the falsity of the too sanguine expectations. Although the amount of seed put to incubation was superior to that of the previous year, and the course of the raising seemed satisfactory, the actual weight of the cocoons turned out to be less; for the prolonged cold weather of the earlier part of the season, followed by the excessive heat, had the effect of causing the worms to pass through the changes more rapidly and to work less, with the result that the cocoons were lighter. Thus, although the number of cocoons was greater than that of the previous year, the actual weight was less, as is apparent from the following official figures:

Market.	1887.	1886.	Increase.	Decrease.
	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
Cuneo	761,470	818,870		57,400
Racconigi	755,760	728,600	27,160	
Asi	580,280	607,800		27,520
Novara	467,521	498,882		31,361
Alba	461,000	545,600		84,600
Turin	438,660	458,810		20,150
Jesi	331,293	334,037		2,744
Osimo	283,414	308,732	25,318	
Pinerolo	284,800	350,130		65,330
Voghera	284,580	308,680		24,100
Saluzzo	237,550	358,500		120,950
Alessandria	234,550	189,310	45,240	
Cavour	215,800	201,830	13,970	
Fossano	206,600	259,900		53,300
Pesaro	204,759	190,830	13,929	
Modigliani	197,600	337,800		140,200
Brescia	185,000	323,158		138,158
Bra	180,250	332,400		152,150
Carmagnola	176,900	198,980		22,080
Reggio Emilia	167,625	218,038		50,413
Mantua	156,855	217,215		60,360
Foscombroni	153,770	186,437	32,667	
Savignano	146,500	193,250		46,750
Vigevano	138,980	58,719	80,261	
Stradella	134,500	110,840	23,660	
Fermo	106,972	67,275	39,697	

Markets.	1887.	1888.	Increase.	Decrease.
	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
Jovea	88,100	132,500		43,400
Arezzo	80,180	88,135		7,953
Dogliani	75,800	85,200		9,300
Casal Monf.	65,922	72,608		6,671
Ceva	64,950	159,410		94,460
Chrovasco	58,356	53,600	5,750	
Novi Ligure	57,661	55,320	2,330	
Pisa	48,505	33,950	14,555	
Nizza Monf.	44,140	55,700		11,570
Fano	37,066	32,575	4,481	
Pontedera	35,600	39,090		3,480
Milan	31,861	35,929		4,068
Total	8,170,088	8,932,560	328,018	1,134,495

The average prices (in Italian lire) per kilogram of cocoons at the four standard markets were as follows :

	<i>Lire.</i>
Alessandria :	
Italian yellow	3,528
White, green, and Japanese.....	3,006
Novara :	
Italian yellow	3,677
Japanese	3,184
Voghera :	
Italian yellow	3,638
Japanese	2,863
Mantua :	
Italian yellow	3,313
Crossed races.....	3,069
Japanese	2,739

From the above table it will be seen that this year's crop of cocoons is about 9 per cent. less than that of last year. The cocoons that have been reeled so far show that the difference in the yield of silk will be still greater, for the chrysalis forms a larger proportion of the weight than last year. It is safe to say that the actual yield in raw silk of this year's harvest is at least 15 per cent. less, and American buyers must resign themselves to this fact. Prices are and will remain higher, and I anticipate a sustained market, and probably some advance on present prices. Recently there have been heavy purchases, it is presumed, for the purpose of speculation. This movement is controlled by the men who managed the operations of the syndicate of 1885, and they have the ability and apparently the intention of maintaining the present reasonably advanced prices.

One feature in this year's harvest is worthy of remark, and that is the freedom of the silk worms from disease, in spite of the very unfavorable weather. This shows the perfection that sericulture has reached in Italy, and especially the value of the bacological establishments, which, by years of study and the most careful selective breeding, have been able to bring about a vast improvement in the breed, and produce a most superior quality of "seed."

The silk reeling and spinning establishments have been making the same progress, so that Italian raw silk possesses an evenness and finish which make it far superior to hand-reeled Chinese silk. And this particular quality fits it peculiarly for the fast-running American looms, where a break is a much more serious and costly matter than in Europe.

That the American manufacturer is beginning to appreciate this is shown in the rapid increase of exports of raw silk during the last few years. Thus, from 1880 the exports have been as follows :

Periods.	Bales.	Amount.	Periods.	Bales.	Amount.
1880.			1884.		
Jan. 1 to Mar. 31.....	37	\$58,666.55	Jan. 1 to Mar. 31.....	518	\$572,499.80
Apr. 1 to June 30.....	46	68,614.56	Apr. 1 to June 30.....	510	585,534.42
July 1 to Sept. 30.....	123	180,599.74	July 1 to Sept. 30.....	374	400,923.08
Oct. 1 to Dec. 31.....	124	143,502.26	Oct. 1 to Dec. 31.....	462	471,514.31
Total.....	341	446,383.11	Total.....	1,864	1,980,476.11
1881.			1885.		
Jan. 1 to Mar. 31.....	88	101,340.15	Jan. 1 to Mar. 31.....	671	711,243.46
Apr. 1 to June 30.....	61	77,740.82	Apr. 1 to June 30.....	944	974,735.36
July 1 to Sept. 30.....	133	165,539.46	July 1 to Sept. 30.....	1,086	1,012,016.84
Oct. 1 to Dec. 31.....	301	373,184.00	Oct. 1 to Dec. 31.....	1,357	1,238,270.84
Total.....	578	717,806.43	Total.....	4,018	3,991,270.70
1882.			1886.		
Jan. 1 to Mar. 31.....	228	268,993.14	Jan. 1 to Mar. 31.....	1,076	1,184,944.10
Apr. 1 to June 30.....	206	262,115.17	Apr. 1 to June 30.....	739	770,110.64
July 1 to Sept. 30.....	264	338,014.51	July 1 to Sept. 30.....	1,080	1,000,980.59
Oct. 1 to Dec. 31.....	461	542,766.28	Oct. 1 to Dec. 31.....	1,479	1,574,104.17
Total.....	1,179	1,431,889.10	Total.....	4,394	4,457,519.50
1883.			1887.		
Jan. 1 to Mar. 31.....	364	421,648.10	Jan. 1 to Mar. 31*.....	649	745,987.05
Apr. 1 to June 30.....	417	476,236.76	Apr. 1 to June 30.....	1,333	1,297,819.25
July 1 to Sept. 30.....	556	619,974.81			
Oct. 1 to Dec. 31.....	668	651,120.62			
Total.....	2,005	2,169,040.29			

* Strike in the American silk manufactories.

From the table it will be seen that the increase has been rapid and uninterrupted, and information that I have received from various quarters convinces me that the increase will continue.

In this connection a word to American buyers seems timely. I am told by a disinterested expert, who is thoroughly acquainted with the New York market, that while experts here can detect a difference of 5 per cent. in the quality of raw silk, the average American buyer hardly detects a difference of 25 per cent., and that unscrupulous dealers have taken advantage of this state of affairs to palm off an inferior article at higher prices. It is accordingly of the greatest importance for American manufacturers to inform themselves carefully of the reputation of the houses from whom they buy, and to have buyers who are able to detect and are constantly on the watch for the smallest differences in the quality of the silk delivered.

HENRY C. CROUCH,
Consul.

UNITED STATES CONSULATE,
Milan, September 5, 1887.

LABOR AND WAGES IN GERA.

REPORT OF COMMERCIAL AGENT NEUER.

Though the city of Gera has only 35,000 inhabitants, it is one of the most prominent manufacturing places in Germany. Of its industries the manufacture of worsted goods stands in the front rank, embracing about thirty factories, some employing as many as 1,000 steam looms. Besides, it contains five dyeing and finishing establish-

ments, three worsted-yarn spinning mills, seven carpet factories, four tobacco mills, seven accordion factories, five iron foundries and engine works, three horse-hair spinning mills, four piano factories, thirty-one tanneries, aside from a considerable number of manufacturing establishments of smaller importance.

While some years ago the industries in this city were in a flourishing condition, a great change has taken place since last year. The uncertain political state of Europe, together with the extraordinary fluctuations in the prices of wool, could not fail to exercise a most depressing influence upon the commerce of this place. Moreover, it is attributable to the continuous introduction of higher duties on the part of Austria, and especially of Russia, which renders the exports to both countries almost impossible. As a consequence, in many factories the time of work has been shortened, wages have been lowered, and laborers discharged, while the necessities of life are comparatively high in price. Under these circumstances it is extremely difficult for the workman to make both ends meet, and there is no question that the position of the American workman is eminently superior in all that pertains to the happiness and well-being of himself and family and in his ability to save for the future.

The fare of the factory hands in this region is of a simple kind. Their principal food consists of bread and potatoes. On rising in the morning they will have a cup of common coffee and some white bread or black bread and butter or cheese; their dinner will consist of some cheap vegetables, mostly potatoes, and a small piece of meat, but very often without the latter; at 4 o'clock they have one or two cups of poor coffee again, with some black bread and butter, and in the evening a supper of cheese or sausage with black bread and a glass of beer. There may be a change to this diet in some cases, but they are to be considered as exceptional.

The married workman takes his meals partly in the factory and partly at home; the single one either with the family of a fellow-laborer or in a cheap restaurant. For the support of a family the wages of the husband are generally inadequate, and therefore the wife and elder children have to contribute a share to their sustenance.

The lodgings of the laboring classes are of a very poor kind. In most cases they are two or three comfortless rooms. Owing to the large and constant increase of the population rents are steadily rising, and range from 150 marks (\$35.70) to 180 marks (\$42.84) per year, according to location and condition of the premises.

The workmen in this district are industrious and honest, but I find that not a few of them, and principally the youthful members, indulge in excessive beer-drinking, so that they will rather miss a substantial meal than their customary quantity of beer. As indicating the large beer consumption in Gera, it may be mentioned that there are about two hundred saloons engaged in this trade. The population being 35,000, there is accordingly one saloon to every 175 inhabitants. Brandy, rum, gin, and other liquors are not much used. The heavy impost laid on all spirits from October 1, this year, and enhancing their prices, will still more restrict the sale of spirituous liquors.

As to the method of working, the German lacks very much the practicalness and quickness of the American laborer. Unlike the free, independent feeling which characterizes the American work-

man, the German laborer feels depressed, owing to the low position he socially holds in this country. Accordingly it is not surprising that the majority of the working people are discontented and inclined to the utopianism of the socialists.

Strikes are of rare occurrence and generally prove unsuccessful, inasmuch as either the necessary funds are wanting or cheap hands may be procured from other parts of Germany.

Workingmen usually commence work at 6 o'clock in the morning and quit at 7 o'clock in the evening, having half an hour for breakfast at 9 o'clock in the morning; one hour for dinner at noon; and half an hour at 4 o'clock for vespers.

The payments for wages are made each week on Saturday, except in some factories, where employés are paid on Friday, in order to deter them from excessive beer-drinking, to which they are more inclined on Saturday, the subsequent day being a day of rest.

Co-operative stores, prosperous as they are in other parts of Thuringia, have no existence in this city, owing on the one hand to the antagonistic principles of the socialistic party, being in favor of state help and against self help; on the other hand to the large competition, enabling the working classes to purchase the necessaries of life at the lowest prices, through the regular and usual business channels.

To examine the condition of factories as regards their safety there are specially authorized inspectors invested with all the powers of the police authorities. About their observations and dispositions annual reports have to be submitted to the "Bundesrath" (federal council) and the German Parliament.

In case a workman meets with an accident, an indemnification is only granted if it can be proved that the director or any person having control of the factory is to blame for it. Should injury result from the accident the costs for medical treatment and also pecuniary losses have to be borne by the employer. If death follows, likewise the burying expenses must be refunded. A decision concerning an additional compensation in cash to the disabled or his heirs is left to the judicial authorities. The relations between employer and employed are mostly of an unsatisfactory character. While the laborer displays a feeling of willingness and good nature, when face to face with his employer, his real and true sentiments, as revealed to his fellow-laborers, are in many cases envy and hatred. It must be acknowledged that by some manufacturers laudable consideration is given to the moral and physical well-being of their employés, while with others the chief object seems to be to get the largest amount of work done for the lowest wages.

Taxes are of two different kinds. Besides the taxes on tobacco, beverages, and various necessities of life, the income is subject to a progressive tax. An annual income of—

\$100 pays.....	\$1.70
150 pays.....	2.85
200 pays.....	8.57
250 pays.....	11.43
300 pays.....	14.28

Low as these taxes may appear from an American stand-point, they are, considering the low earnings, very frequently a heavy burden to the laborer.

Many women are employed in manufacturing pursuits, and if there is anywhere a class of persons who can justly complain of a hard

lot in life, it is the poor laboring women in this country. Not only has the married woman to do out-of-door work, she has also to attend to the household affairs during the time she ought to have for rest. In case the workwoman is mother of little children the latter are given either to a relation or an acquaintance. They are also brought to so-called "Kinder Cervahraustalten," where the children under the supervision of the local authorities are for a trifle of 30 pfennige ($7\frac{1}{4}$ cents) per week properly cared for. To these institutions, proving of great benefit to the laboring classes, only children between the ages of three and six years are admitted and brought there every morning and taken home every evening.

The wages paid to female adults vary greatly, inasmuch as in different localities different wages are paid for the same kind of work; but it may be assumed that the earnings of the great majority employed in the factories of this district amount to 10 marks (\$2.38); while the minimum is stated to be 6 marks (\$1.43); the maximum 15 marks (\$3.57). Their hours of labor are the same as those of the male laborers. As a consequence of the compulsory school education, children from twelve to fourteen years old can be employed only for half a day in factories and are not allowed to begin work before half-past 5 in the morning and to continue work after half-past 8 in the evening. The employment of children younger than twelve years old in factories is, for sanitary reasons, prohibited. Living in small and uncomfortable lodgings, without substantial food and generally exposed to the hardships of life, it is not surprising that the mortality among the work-people, and especially their infants, is very considerable.

The obligatory "Krankenkassen," having for their purpose the support of the sick and disabled, prove of great benefit to both male and female factory hands. It would be impossible to give an accurate account thereof within the space of this report. Proceeding from the idea that the employer is bound to afford some relief to his employees in case of need, it is partly also a system of self help. Accordingly the employer, as well as the employed, has to contribute to a common stock, from which the sick and disabled receive medical treatment, in addition to half of the average wages up to thirteen weeks' time.

The employment of the many women in factories is considered to some degree the cause of poor wages, but it is an undeniable fact that many industries in Germany could not successfully compete with other countries were it not for the low standard of wages. The state of education of women and children employed in factories, imperfect as it is in many instances, compares very favorably with most other countries, owing to the compulsory school education throughout this country.

Regarding various small trades, I may say that the wages are as follows, according to circumstances:

Occupation.	Wages.	Equivalent in United States currency.
	<i>Marks.</i>	
Joiners and locksmiths	14.00 to 18.00	\$3.32 to 4.28
Painters	10.80 to 20.00	2.57 to 7.14
Slaters	18.50 to 24.00	3.98 to 5.71
Masons	18.00 to 18.50	4.28 to 4.40
Timmen	14.00 to 20.00	3.32 to 4.78
Carpenters	18.00 to 21.00	4.28 to 5.00

These men are usually controlled by a master, who undertakes a job of work for a certain sum, paying the men their wages and taking himself whatever profit or loss may result from the job. In a still smaller way of business, masters have apprentices, who do the work under superintendence, but as the wages or terms are so various, as well as of a purely private character, I need not consider the matter here.

I transmit herewith what I believe to be a reliable statement as to the rate of wages prevailing now in the factories of this city.

Rate of the weekly factory wages and the corresponding hours of labor at Gera.

Description of employment.	Lowest.	Highest.	Average.	Hours of labor per day.
Weaving mills:				
Overseers	\$4.32	\$7.20	\$5.76	11
Shearers	2.88	6.00	4.44	11
Weavers, men	3.60	7.20	5.40	11
Weavers, women	1.44	3.60	2.52	11
Glueers	2.88	5.28	4.08	11
Fasteners	2.88	4.80	3.84	11
Pickers, women	1.44	2.40	1.92	11
Winders, women	1.92	2.48	2.20	11
Dye-houses:				
Dyers	2.40	3.60	3.00	11
Washers	2.40	3.36	2.88	11
Female hands	1.68	1.92	1.80	11
Apprentices	1.56	1.80	1.68	10
Finishing works:				
Shearers	2.40	3.60	3.00	11
Fullers	2.40	3.60	3.00	11
Finishers	4.80	7.20	6.00	11
Assistants	3.86	4.08	3.90	11
Apprentices	1.56	1.80	1.68	10
Accordion factories:				
Joiners	3.86	4.32	3.60	11
Tuners	4.80	7.20	6.00	11
Journeymen	2.40	2.88	2.64	11
Apprentices .....	.96	2.16	1.44	11
Children .....	.36	.60	.48	6
Iron founderies and engine works:				
Turners	3.60	4.32	3.84	10
Founders	3.60	4.32	3.84	10
Journeymen			1.68	10
Tanneries:				
Tanners	3.60	4.32	3.84	11
Journeymen			3.36	11
Tobacco mills:				
Twisters	3.84	4.80	4.32	11
Journeymen			2.88	11
Female hands	1.56	1.80	1.68	11
Children .....			.48	6
Apprentices .....	.72	1.08	.96	11
Flour mills:				
Millers	3.60	4.32	3.84	11
Journeymen	2.76	3.00	2.88	11
Carpet factories:				
Weavers	3.60	7.20	5.40	11
Shearers	4.32	4.80	4.56	11
Journeymen	2.88	3.60	3.24	11
Female hands	1.44	2.88	2.16	11
Apprentices	1.44	2.16	1.80	11
China ware:				
Painters	2.40	5.76	4.08	11
Turners	2.40	6.00	4.20	11
Finishers	3.60	6.00	4.80	11
Journeymen	2.16	3.60	2.88	11
Female hands	1.44	1.92	1.68	11
Horse-hair spinning mills:				
Spinners	3.60	4.32	3.96	11
Journeymen	2.52	3.24	2.88	11
Female hands	1.68	2.16	1.92	11
Worsted-yarn spinning mills:				
Spinners	3.60	4.80	4.20	11
Carders, overseers	3.60	4.00	3.80	11
Carders, common hands	1.92	2.40	2.16	11
Washers	2.88	3.60	3.24	11
Sorters	3.60	4.80	4.20	11
Winders	1.92	2.16	2.04	11
Engineers			4.32	11

As to the cost of living, I can give no better statement than to quote the retail prices of the principal articles usually classed among the necessaries of life :

Retail prices of necessaries of life.

Bread :		
White	per pound..	\$0.08
Black	do.....	.02½
Beef :		
Steaks.....	do.....	\$0.20 to .24
Roast.....	do.....	.17 to .20
Common	do.....	.14½
Chickens.....	each.....	.36 to .60
Mutton.....	per pound..	.14½
Pork.....	do.....	.15½
Veal.....	do.....	.13
Eggs.....	per dozen..	.14½ to .20
Butter.....	per pound..	.24 to .36
Cheese, Swiss.....	do.....	.24 to .28
Coffee.....	do.....	.80 to .48
Tea.....	do.....	.96 to 1.20
Sugar.....	do.....	.07 to .10
Potatoes.....	per 100 pounds..	.72
Cabbages.....	apiece.....	.02½ to .05
Flour.....	per pound..	.04½ to .05½
Kerosene oil.....	per liter..	.06
Milk	do.....	.05

CHARLES NEUER,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Gera, August 13, 1887.

INDUSTRIAL EDUCATION IN GERA.

REPORT OF CONSULAR AGENT NEUER.

The generally perceivable revolution prevailing in the condition of industries and a changed mode of production have brought forth the establishment of technical and industrial schools, serving for the advancement of technical knowledge. Of this widely spread system of industrial education the weaving school at Gera forms a branch.

Proceeding from the idea that special consideration has to be given to a thorough theoretical as well as practical training in the woollen industry, if its existence should be permanently secured and a successful competition with other countries rendered possible, it is mainly through the efforts of some prominent merchants in this city that the institute was established in the year 1868.

Wealthy merchants taking a deep interest in the school and giving their best attention to all details connected therewith, it is attributable to their liberality that the institute has been furnished with the necessary funds, which have been increased from time to time by donations and bequests. It has a principal and four assistant teachers, who are skillful weavers. The course of study lasts three years. The board of administration consists of specially qualified manufacturers

who have to watch over the school's equal progress, seeing at the same time that good order prevails therein.

To attain this object the institution is occasionally inspected by the president of the board of administration.

The pupils are partly young workmen and partly young merchants engaged in weaving-mills, and are divided into four classes.

The school is open twice a week, namely, on Sundays from 7 to 9 o'clock in the morning, and on Tuesdays or Thursdays from 8 to half-past 9 o'clock in the evening, thus not interfering with the usual working hours of the students.

Theoretical instruction is given from various works on weaving, machines, textiles, and from a large collection of designs and models.

For the practical instruction there are in use 7 power-looms and 12 hand-looms, with their principal parts to suit the weaving of the various standard fabrics, besides other appliances for demonstrating the processes of preparation and of plain and fancy weaving.

As regards the single classes, the instruction therein comprises the following subjects:

First class.—Origin and development of weaving, designing of simple patterns, and calculations.

Second class.—Weaving in its present state of perfection, with special regard to the Jacquard loom. Method of rating goods by carefully ascertaining the quantity and price of material used; also, cost of labor required in the production of a given length and width of goods, or from given data of values of material and labor. Designing for Jacquard looms.

Third and fourth classes.—Machine construction, with special regard to the power-loom; comparative merits of power-looms; consideration of the principal parts which are common to all power-looms.

An exhibition embracing woven articles, sketches, designs, and writings of the pupils on textiles, machine construction, etc., is held in April of each year, and the last one, which took place on the 17th of April this year, was considered a great success. Prizes were awarded on this occasion, consisting of books on designing and weaving, cases of mathematical instruments, diplomas, etc. The institution has most favorably developed since its establishment, and by a systematic training of its attendants is doubtless exercising a highly beneficial influence on the woolen industry of this city.

The number of scholars has been 127 during the past year.

A long-felt want was realized this year by the opening of a new school-house, which, with its well-suited and spacious accommodations, allows an increased attendance. The fee to be paid monthly by each pupil amounts to only 50 pfennige (12½ cents), hence enabling the working classes to share the benefits of an advanced schooling.

I commend this system of technical education as well worthy of the serious consideration of our manufacturers, as specially trained and skilled operatives must be of vast service to us. It is an important factor and closely connected with the highest interests of our laboring classes. In this connection I draw attention to the English Parliament having recently suggested the establishment of technical schools according to the German system. The advancement of German commerce in all parts of the world is generally admitted, and while cheap German labor as well as the weighty governmental aid may partly account for this fact, it is no less the superior schooling which opens to this country new markets.

Our merchants ought to adopt the same methods to strengthen our manufacturing industries and employ all possible means in order that we may not only be able to keep pace but outstrip all competitors.

CHARLES NEUER,
Consular Agent.

UNITED STATES CONSULAR AGENCY,
Gera, August 26, 1887.

PORTUGUESE CUSTOM-HOUSE RETURNS.

REPORT OF VICE-CONSUL-GENERAL WILBOR.

There has been received at this consulate recently a volume of custom-house returns up to and including 1885. This report is an improvement on previous publications of the same character issued by the ministerio da fazenda, and I have compiled from it the following tables:

Importations and exportations from and to foreign countries, 1881 to 1886.

Years.	Importations.	Exportations.
1881	\$26,184,690	\$22,322,115
1882	26,253,075	24,362,509
1883	32,729,702	24,615,800
1884	35,191,243	22,806,124
1885	35,376,972	24,473,053
1886	40,087,442	25,060,210

Importations and exportations during 1886. (Tariff classification.)

No.	Class.	Importations.	Exportations.
1	Living animals	\$1,120,112	\$1,522,312
2	Animal productions	1,965,785	419,75
3	Fisheries	1,931,645	631,225
4	Wool and hair	2,728,559	121,947
5	Silk	1,129,527	22,221
6	Cotton	4,402,560	99,442
7	Linen	901,408	14,009
8	Wood and timber	1,228,058	3,008,819
9	Farinaceous articles	5,573,207	224,672
10	Colonial productions	3,228,452	92,007
11	Vegetable matter	851,324	1,512,240
12	Metals	2,652,354	164,355
13	Minerals	2,479,918	727,125
14	Wines, liquors, beverages	174,170	14,520,800
15	Glass and earthenware	822,020	18,729
16	Paper and its applications	496,601	57,755
17	Chemical products	408,828	363,720
18	Divers products and compositions	728,228	51,222
19	Miscellaneous manufactures	2,820,302	265,201

Imports and exports from and to the United States during years named.

Year.	Imports.	Exports.	Year.	Imports.	Exports.
1869.....	\$1,221,370	\$180,900	1878.....	\$2,465,880	\$340,630
1870.....	1,326,060	200,440	1879.....	3,468,440	373,890
1871.....	1,637,130	402,190	1880.....	5,732,370	665,470
1872.....	1,307,230	331,440	1881.....	5,965,790	694,980
1873.....	1,019,620	199,150	1882.....	6,113,280	755,020
1874.....	1,353,440	258,250	1883 *.....		
1875.....	2,459,610	406,890	1884 *.....		
1876.....	3,446,920	429,620	1885.....	4,995,750	668,430
1877.....	2,318,650	374,650			

* No returns furnished.

Importations and exportations from and to the United States during 1885, classified as per Portuguese tariff.

No.	Class.	Importations.	Exportations.
1	Living animals.....	\$58	\$3
2	Animal productions.....	19,580	100
3	Fisheries.....	31,119	152
4	Wool and hair.....	378,000	
5	Silk.....	77	
6	Cotton.....	56,015	655
7	Linen.....	6,200	16
8	Wood and timber.....	494,961	593,105
9	Farinaceous articles.....	3,899,736	1
10	Colonial productions.....	145,823	102
11	Vegetable matter.....	18,804	7,453
12	Metals.....	10,368	1
13	Minerals.....	290,580	233
14	Wines, liquors, beverages.....	89,430	39,000
15	Glass and earthenware.....	1,875	69
16	Paper and its applications.....	1,384	83
17	Chemical products.....	1,113	37,338
18	Divers products and compositions.....	11,323	127
19	Miscellaneous manufactures.....	57,395	3,936

The sum of \$682,370.67 is given in Table 8 by the custom-house authorities as the total value of exports to the United States during 1885, but the declared value by shippers at this consulate and at Oporto agency was \$1,043,698.

Importations and exportations from and to foreign countries during 1885.

Countries.	Importations.	Exportations.
England.....	\$12,566,532	\$7,430,166
United States.....	4,994,439	692,560
France.....	4,843,565	7,014,085
Germany.....	4,054,699	1,230,006
Brazil.....	2,108,650	4,514,739
Spain.....	1,767,301	1,344,767
Belgium.....	1,257,120	261,071
Sweden and Norway.....	856,376	225,513
Italy.....	658,432	163,948
Holland.....	516,343	171,750
Morocco.....	368,372	4,890
Russia.....	298,649	400,351
Denmark.....	3,654	127,739
Austria.....	2,453	241
African Portuguese colonies.....	784,413	681,175
Asiatic Portuguese colonies.....	4,315	15,885
Countries not enumerated.....	431,360	233,338

An examination of these tables shows a great uniformity in the total amount of the foreign trade of this Kingdom, although fluc-

tuating somewhat as regards the proportions maintained by individual countries. A sensible diminution is visible in importations from the United States, Brazil, Russia, and Italy, while slight augmentations exist in regard to France, England, and Belgium. In both branches of trade with Portugal Germany makes tangible progress, while Great Britain since 1882 has lost 40 per cent. of her export from Portugal. Owing to the great demand in France for ordinary wines of foreign origin to "fortify" the diminished supply of native wines, the general exports to France from Portugal increased during 1885 by 140 per cent., an increase not sustained in 1886, as the wine-growers of Portugal, intoxicated by their prosperity, demanded prices which drove French buyers to the markets of Spain and Italy.

It is difficult to make an intelligent digest of Portuguese custom-house returns. Upon investigation they are not found to be consistent with themselves, but the report herein transmitted may be considered as substantially accurate.

J. B. WILBOR,
Vice-Consul-General.

UNITED STATES CONSULATE-GENERAL,
Lisbon, August 28, 1887.

CADIZ WINES AND GERMAN ALCOHOL.

REPORT OF CONSUL INGRAHAM.

I inclose herein the translation of a letter from the mayor of Jerez de la Frontera, the seat of the sherry-wine district, addressed to the civil governor of the Province of Cadiz in reference to his inquiries on the subject of wines and the importation and use of German alcohol.

MY DEAR SIR: In reply to your telegram, which I received yesterday, I hasten to reply by letter, as you have been pleased to request, that the condition of trade and of the wine market in this locality could not be more deplorable. It has been repeated a thousand times, and is perfectly well known, that the real and renowned sherry wines suffer such an absolute stagnation and want of demand, except at a ruinous price, before the imperious necessities of the producers, that purchases from old wines are rarely made as formerly—the conditions of this industry, once so flourishing and now so depreciated, having wholly changed, followed by the ruin of raiser and seller.

The vineyards of this district, representing so much wealth, have no value at present, as the land yields no profit and the capital no interest. Their proprietors meanwhile continue cultivating them as well as they can, at immense sacrifices, and awaiting better times to compensate them; but the evil has been increasing every day, and many have succumbed, and many others have contracted them out to middlemen, while few, very few, have persevered, using up the income that other investments might produce, upon the unfortunate inheritance that an irresistible strength of affection or the remotest hope impels them to preserve.

It is sufficient to convince one of the gravity of this situation, which the limits of this letter will not permit me to detail—the frightful decline in the price of our musts which twenty years ago readily sold from 80 to 90 pesetas the hectoliter, and to-day; in the crop before the last scarcely any producers have been found at the most ruinous prices; that is, from 13 to 14 pesetas for the same measure, while first-class wines, called a *fuera*, are still on hand in our cellars.

Ten years back, when they could pay the cost of labor and get a little interest on the capital—even that had already been pronounced the period of great decline: but now one can not understand how, at such prices, every vineyard has not been abandoned; and there are many who in despair invoke the phylloxera, the only calamity that has yet respected us, as a means of once more escaping from a state

of affairs that surely has no precedent in the history of the economical phenomena of our wine culture.

It is a fact, although generally at very low prices, that they export every year more butts under the name of sherry than the district produces, and yet the legitimate product has no sale, and the spurious wines, usurping their titles, injure all the time more the fame acquired through centuries, and are held in the foreign markets on a par with the artificial liquids of Cette and Hamburg. Now, the principal cause of so much falsification, of such discredit and ruin for our wines, is no other than the enormous importation of German alcohol, aided by all sorts of exemptions and privileges.

It is in the knowledge of all, what has been eloquently said and demonstrated in the cortes by the illustrious sons of this town, the Duke of Almodovar del Rio and the Marquis de Mochales; what has been represented to the Governor by our most respectable corporations, like the Exporters' Association, the Economic Society, and the Chamber of Commerce, has also been affirmed in special congresses, in memorials, and in periodicals, without even having been denied; and it is the truth and must be presented to your excellency in the clearest and strongest manner, that one who has seen his beloved town happy and prosperous and honored, sees it to-day, with deepest pain, poor and discouraged and near the verge of ruin.

As to prices of wine it is impossible for me to give your excellency any reliable information.

The great variety of brands of complex mixtures, of names and imitations, has introduced the greatest confusion in the business. Certain cellars look like mysterious laboratories, whose secrets nobody is allowed to penetrate, and hence comes that infinite variety of prices. What can be assured is that the finer grades—the genuine sherry—has necessarily only to maintain a value which will never allow it to become confounded with those liquids at 10 or 15 pounds a butt, and which are to-day the principal brands for exportation.

Those monthly prices which appear to be the main question of your telegram, and which usually are found in the statistics that the administration expects to make, would only tend to the greatest mistakes and errors with reference to a market under such exceptional conditions as ours. Respecting the exportation, though undoubtedly much less than in former years, information substantially correct could be furnished by the custom-house, as the municipal administration is independent of that department, and has no facilities for such investigations.

Finally, the present crop appears to be no more than middling, according to statements of producers, and this provided that no extraordinary conditions should occur before the vintage.

Such, with all loyalty and frankness, thoroughly informed, this mayoralty has the honor to communicate to your excellency upon the different points of the telegram which is replied to with the brevity you were pleased to recommend.

Awaiting your commands, I remain, with the greatest respect, your excellency's affectionate servant, who kisses your hand.

JOSÉ HEREDIA.

In regard to the discussion going on, not only at Madrid, but throughout Spain, respecting the importation of German alcohol and its use in fortifying Spanish wines, I report that the subject continues to excite general interest in this important wine-producing district, particularly in this city, where wines are largely exported and German alcohol is imported in large quantities by several wholesale firms who have, for some years, sold largely to the wine producers of Jerez de la Frontera, San Lucar, Port St. Mary's, Rota, and other wine-raising centers of this district.

Distilled chiefly from the beet and the potato, inferior in quality to Spanish alcohol, and favored on importation dues by treaty, German alcohol has driven Spanish and all other alcohols from the market, not only of this section, but throughout Spain, until the amount of importation from Germany reaches annually \$12,000,000, proving detrimental to Spanish trade and commerce, injuring the reputation of the wines for purity, and affecting the general health in consequence of the use of adulterated mixtures.

NOTE.—A peseta is twenty cents; a hectoliter is 100 liters or English quarts.

The chambers of commerce of Cadiz and Jerez de la Frontera have addressed complaints to the Madrid government, taking substantially the same view of the subject as that which now unanimously prevails in Spain, asking that prohibitory duties may be levied on German and other cheap distillations from cereals, potatoes and beets, from whatever country they may come, as well as on all wines artificially colored, and composed of any substance foreign to grape; that for consumption dues the values of wines may not be more than 30 per cent. of their value, and distilleries exempt from taxes for ten years; staves for pipes also free of duty, and machinery for manufacturing introduced free, besides 3 cents a gallon premium for exportation on spirits of wine for ten years. They also ask the creation of a laboratory in each province for chemically testing the wines, and that each cask may be marked under severe penalties for the omission.

In response to the request of the minister of state, the civil governor of the province of Cadiz has telegraphed the mayors of Jerez, Port St. Mary's, and San Lucar, asking for information about the wines of their respective localities; the amount of stock on hand; if the prices of exportation have increased or diminished during the current year; and other causes influencing the question for the consideration of the government.

I give below the quantity in liters of alcohols imported into Cadiz from 1877 to 1886, inclusive. About all the alcohol now imported into Cadiz is from Germany. Reckoning a butt at 132 gallons and a liter at 1 quart, we have an importation of about 11,000 butts into Cadiz in 1886, which, valued at the market price of \$80 a butt, would amount to \$880,000.

The interests involved in this importation are too great, and the taxable income too large, to allow prohibitory duties on the article without opposition, which is being developed among small retailers of fortified wines and classes of the population whose tastes crave a drink stronger than the light wines of the country.

Years.	Quantity.	Years.	Quantity.
	<i>Liters.</i>		<i>Liters.</i>
1877	3,569,391.	1886	5,081,591
1878	3,450,785	1887	4,291,781
1879	3,550,450	1884	5,152,271
1880	3,276,582	1885	5,106,184
1881	3,080,775	1886	5,497,701

UNITED STATES CONSULATE,
Cadiz, August 3, 1887.

DARIUS H. INGRAHAM,
Consul.

CADIZ SALT-MAKERS.

REPORT OF CONSUL INGRAHAM.

I inclose herein translations of two letters, respectively addressed to the ministers of finance and state, at Madrid, from the salt-makers of Cadiz and vicinity, requesting a readjustment of values and an additional duty on Portuguese salt. Under the recently expired treaty with Portugal, the tax on salt was only 54 centimos

of a peseta, or 10½ cents the 100 kilograms, while that with non-treaty nations was 3½ pesetas, or 60 cents per 100 kilograms.

The salt-growers complain that under this low tariff imposed by the expired treaty with Portugal the adjoining provinces were furnished salt at prices that Spanish salt could not compete with, and they request that in the new treaty now proposed the duty may be made high enough to protect their business. I learn from interested sources that the duty is asked to be brought up to what non-treaty nations pay.

DARIUS H. INGRAHAM,
Consul.

UNITED STATES CONSULATE,
Cadiz, Spain, July 19, 1887.

[Inclosure No. 1.]

To his Excellency the Minister of Finance :

We, the undersigned, directors of the Salt Grower's Association, for ourselves and the salt-producers of this coast, respectfully address your excellency in behalf of a modification in the value of foreign salt in order to adapt it to the duty fixed under section 85 of the tariff in force.

This for treaty nations, of 54 centimos of a peseta for a quintal metrico, is a figure undoubtedly very low, considering that the article is included among those which pay an extraordinary tax, and that the value of quintal metrico, on whatever frontier, ought to be estimated at more than six pesetas.

If this defect has not hitherto been felt, it is owing to the special nature of the article. Its relative slight value, compared with its weight and volume, makes the intermediate transportation an important factor in its valuation and renders its carriage difficult without additional charge. But there is a country producing it where exceptional conditions are found, and such is the neighboring Kingdom of Portugal. An integral part of the Iberian Peninsula, and equal to Spain in its productions, with its railroad lines facilitating it, its salt has inundated the neighboring provinces, taking advantage of a tax almost nominal.

Although this evil has ceased with the expiration of the treaty of 1833, it may recur if that is renewed, and to avoid this, and without prejudging the negotiations for said renewal, that it may favor the national salt industry, we request your excellency to arrange a rectification of the value fixed on foreign salt for payment of duties that may be in harmony with Article 7 of the law of July 1, 1869.

[Inclosure No. 2.]

His Excellency the Minister of State :

The undersigned, directors of the Salt Growers' Association, for themselves and in the name of all the salt-producers of this coast, respectfully call your attention to the damage which the competition of Portuguese salt has for some time past inflicted on this industry in the provinces of Castile and Estremadura, on the borders of that Kingdom.

Taking advantage of its proximity, the construction of new railroads and the small duty imposed on foreign salt under the second column of the customs tariff, Portuguese salt has substantially driven out Spanish salt from those provinces.

This is no place to discuss the doctrines maintained by opposing economical schools upon custom-house duties, but it being undisputed that the tariffs to-day in force are founded upon the principle of protection to the industries of the country, this protection, to be just, ought to extend to all ; since, otherwise, those deprived of it will pay a higher price upon consumption than those protected, and will clearly become victims of foreign competition.

Section 83 of the tariff in force imposes, under the second column, a tax of 54 centimos of a peseta (10½ cents) upon each quintal metrico of foreign salt. This, in fact, admits an error of valuation, since it includes salt among articles subject to an "extraordinary tax," and 6 pesetas or more being the value of a quintal of salt in

Estremadura and Castile, the charge, even with treaty nations, ought to be very much larger, according to the law of July 1, 1869.

In this extremity the undersigned have also addressed the minister of finance, asking for a just rectification of values, but having negotiations pending with Portugal for the renewal of the treaty terminated, they esteem it of the greatest importance to submit to the consideration of your excellency the situation which confronts them, in order that the terms of the new treaty may prudently protect the interests of Spanish salt-producers. Nor are these alone interested in this subject, but the railroads and the coasting trade, as the marine salt of the country has heretofore been sent to northern ports, and from there distributed to neighboring provinces.

If the effects of this very small tax have not been felt before, it is owing to the special nature of the article, whose small value, compared with its relative weight and volume, renders it almost impossible to bring it from foreign countries without an additional charge for transportation, which raises the price. But Portugal is an exception. A separate political division, it is yet a province of the Iberian Peninsula in all that relates to production, highways, and commercial routes, and these circumstances demand special conditions for certain articles.

We therefore pray your excellency that in the negotiation of the new treaty with Portugal there may be provided a duty on salt sufficient to protect this national product from ruinous competition.

PRICES OF FOOD IN HESSE.

REPORT OF COMMERCIAL AGENT SMITH.

I herewith transmit to you a statement showing the average prices of the leading articles of food in the Grand Duchy of Hesse during the months of October, November, and December, 1886, and January, February, and March, 1887, compared with the average prices during the corresponding months of the preceding year, which statistics have been published by the Hessian Government:

[Price per 100 kilograms = 220½ pounds avoirdupois.]

Articles.	October.		November.		December.		January.		February.		March.	
	1886.	1885.	1886.	1885.	1886.	1885.	1887.	1886.	1887.	1886.	1887.	1886.
Wheat	\$4.08	\$4.15	\$4.13	\$4.12	\$4.16	\$4.10	\$4.24	\$4.12	\$4.31	\$4.12	\$4.32	\$4.22
Rye	3.45	3.63	3.46	3.59	3.45	3.56	3.45	3.55	3.47	3.54	3.47	3.59
Barley	3.65	3.64	3.69	3.61	3.66	3.58	3.71	3.56	3.67	3.52	3.63	3.53
Potatoes	1.08	.88	1.15	.86	1.14	.87	1.18	.91	1.21	.93	1.21	.98
Peas	6.25	6.72	6.94	6.62	6.36	6.65	6.38	6.64	6.16	6.50	6.11	6.31
Beans	6.50	6.76	6.63	6.66	6.59	6.55	6.19	6.60	6.38	6.52	6.38	6.41

The following articles brought, per kilogram (that is, a little more than 2½ pounds avoirdupois):

Articles.	October.		November.		December.		January.		February.		March.	
	1886.	1885.	1886.	1885.	1886.	1885.	1887.	1886.	1887.	1886.	1887.	1886.
	cents.	cents.	cents.	cents.	cents.	cents.	cents.	cents.	cents.	cents.	cents.	cents.
Beef	31	31.6	31	31.4	30.7	31.6	31	31.4	30.7	31.1	30.2	30.9
Veal	36	36.1	26	25.7	36	34.7	25.7	25.2	25.5	25.2	25.7	24.9
Mutton	27	26.4	25	25.7	25.2	25.7	25.7	25.7	26	26.8	26	25.6
Pork	27.8	27.6	27.8	27.6	27.8	27	27.6	27.6	27.8	27.6	27.6	27.8
Wheat-flour	8.6	9	8.6	9.2	8.6	9	8.6	9	8.5	9	8.5	9
Rye flour	6.2	6.6	6.2	6.6	6	6.6	6.2	6.6	6.2	6.6	6.2	6.6
Rye bread	5.5	5.4	5.5	5.4	5.2	5.4	5.5	5.4	5.2	5.4	5.2	5.4
Butter	44.5	47.3	45.7	46.4	47.6	48.5	42.6	42.6	41.6	42.6	43.6	43.5
Burnt coffee (in the bean) ..	65.2	67.8	65.7	67.1	67.6	67.1	67.5	67.3	67.6	67.5	67.6	68.8

Eggs brought about a cent and a half a piece, and milk cost 4 cents a liter (a little more than a quart).

Petroleum cost 5.2 cents a liter from October, 1886, to April, 1887, or about the same as the corresponding period from October, 1885, to April, 1886. Coal brings regularly about 42 cents per 100 kilograms.

Oats, hay, and straw commanded the following prices per 100 kilograms:

Articles.	October.		November.		December.		January.		February.		March.	
	1886.	1886.	1886.	1885.	1886.	1885.	1887.	1886.	1887.	1886.	1887.	1886.
Oats	\$3.10	\$3.20	\$3.07	\$3.20	\$3.06	\$3.28	\$3.06	\$3.32	\$3.18	\$3.33	\$3.10	\$3.41
Hay	1.52	1.42	1.38	1.45	1.36	1.47	1.43	1.49	1.44	1.53	1.45	1.60
Straw	1.05	.97	1.13	.96	1.13	1.02	1.14	1.07	1.17	1.09	1.16	1.10

The aforementioned articles brought the following average prices during the years 1886 and 1885, namely:

Articles.	1886.	1885.	Articles.	1886.	1885.
Wheat per 100 kilograms..	\$4.17	\$4.32	Mutton per kilogram..	.26.4	.26.8
Rye do	3.52	3.80	Pork do .....	.27.6	.27.1
Barley do	3.52	3.91	Wheat flour do .....	.68	.62
Potatoes do	1.03	1.01	Rye flour do .....	.64	.66
Peas do	6.36	6.83	Rye bread do .....	.05.4	.05.4
Beans do	6.49	6.80	Butter do .....	.45	.44
Oats do	3.29	3.57	Burnt coffee do .....	.66	.68
Hay do	1.48	1.33	Milk per liter..	.04	.04
Straw do	1.13	1.02	Petroleum do .....	.05.2	.05.4
Beef per kilogram..	.31	.31.6	Coal per 100 kilograms..	.41	.42
Veal do .....	.25.1	.25.9			

JAMES HENRY SMITH,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Mayence, July 20, 1887.

RICE STATISTICS.

REPORT OF CONSUL LOENING.

I send a report on rice and furnish official statistics of that article from January to July, during the past five years.

Shipment of rice to Europe.

From—	January to July.		1885.	1884.	1883.
	1887.	1886.			
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Rangoon	238,000	280,960	287,600	332,030	336,500
Akyab	155,200	116,250	98,630	82,230	104,440
Bassein	112,400	146,800	143,430	112,620	149,780
Moulmain	30,000	43,130	41,230	35,090	41,440
Calcutta	39,671	43,935	34,031	33,332	39,073
Madras	3,600	180		7,801	13,503
Saigon	33		19,449	57,829	1,607
Bangkok	4,400		7,403	13,334	
Bombay		591	2,724	630	
Java	4,120	1,800	3,050	800	1,031
Japan	22,227	23,212	5,850	44,206	5,375
Total	679,560	662,283	642,963	719,621	803,356

The arrivals (receipts) of rice in Europe from January 1 to July 21-26, inclusive, in the following years, was, viz:

Ports or countries.	1887.	1886.	1885.	1884.	1883.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
London	68,586	88,762	66,058	78,076	100,727
Liverpool	41,028	74,587	56,729	74,812	60,871
Bremen	101,586	71,752	98,181	73,735	67,979
Hamburg	36,456	31,737	27,828	27,162	19,122
Holland	58,672	60,739	55,756	64,461	50,294
Belgium	34,700	28,970	29,290	28,600	33,956
Copenhagen	10,082	5,724	5,094	12,398	10,458
Flensburg	5,442	7,122	6,764	6,122	8,115
France	20,224	16,799	19,691	20,731	47,782
Italy	40,810	27,404	32,895	75,601	51,255
Trieste and Fiume	10,866	14,560	15,927	15,561	10,584
Odessa		1,579	1,740	1,758	1,720
Turkey				1,380	1,449
Total	423,347	424,735	410,453	480,942	464,314

Cargoes of rice loading in Burmah, East Indian ports, for Europe on July 23 to 25, in 1887, 19,000 tons; 1886, 13,000 tons; in 1885, 19,500 tons.

Floating cargoes of rice from East India and other ports on July 21-26.

Ports.	1887.	1886.	1885.	1884.	1883.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Calcutta	4,153	2,250	2,689	2,770	15,108
Madras	1,993	80		1,669	8,660
Akyab	57,474	51,470	34,184	26,237	82,724
Rangoon	114,814	116,067	118,924	124,017	166,667
Basseln	47,743	78,534	57,242	48,777	67,058
Moulmain	1,126	5,226	5,881	5,273	5,535
Java					620
Saigon				10,448	1,000
Bangkok			1,200	1,697	
Japan		3,415	750	6,360	4,275

Bremen's import of raw rice from January 1 to July 31 was, in 1887, 104,666 tons; 1886, 82,668 tons; 1885, 102,101 tons.

England's export of rice, cleaned, table and broken, was, from January 1 to July 19-21, in 1887, 67,851 tons; 1886, 91,676 tons; 1885, 88,000 tons. Stock on hand in England, July 25-30, in 1887, 45,999 tons, including 7,610 tons raw rice; 1886, 61,711 tons, including 15,680 tons raw rice; 1885, 63,191 tons, including 29,690 tons raw rice.*

Price of raw rice, July ultimo, in the past ten years (per sailing vessel), per cwt., cost, freight, and insurance to Bremen.

Year.	Rangoon.	Akyab.	Basseln.	Moulmain.	Year.	Rangoon.	Akyab.	Basseln.	Moulmain.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1887	6 7½	6 3	6 7½		1882	7 1½	7 0	7 0½	7 3
1886	6 3	6 5½	5 10½	7 1½	1881	8 4½	8 0	8 1½	8 4½
1885	6 10½	6 9	6 10½	6 9	1880	9 6	8 9	9 3	9 0
1884	7 10½	7 6	7 9	7 9	1879	9 6	9 0	9 3	9 0
1883	7 9	7 3	7 6	7 9	1878	9 6	9 1½	9 7½	9 9

* Not in millers' hands.

The price of polished Rangoon rice (white) in the Bremen market, July ultimo, during the past ten years was, viz:

[Per 50 kilograms net.]

Year.	Ft. table.	f. table.	Middle.	Shorts or broken oo.	Broken o.	Year.	Ft. table.	f. table.	Middle.	Shorts or broken oo.	Broken o.
	Marks.	Marks.	Marks.	Marks.	Marks.		Marks.	Marks.	Marks.	Marks.	Marks.
1867	10.25	9.50	8.75	8.10	7.25	1882	11.50	10.00	9.25	8.50	7.85
1868	11.00	10.00	8.75	7.75	7.40	1881	18.00	12.25	11.25	10.00	8.90
1869	10.75	9.75	8.75	8.25	8.10	1880	13.50	12.00	12.25	11.50	10.00
1871	11.00	10.25	9.00	9.00	8.40	1879	18.75	12.25	12.25	11.25	10.00
1883	11.75	10.25	9.50	8.90	8.50	1878	18.25	12.75	12.25	12.25	11.70

The prices of broken rice of inferior quality or smaller grains ranges from 6 marks to 7 marks per 50 kilograms. This broken rice (the result of cleaning and sifting) is sometimes submitted again to a crushing process, so as to bring it down to the required size of grain for export to the United States as "granulated rice," paying a duty of 20 per cent. ad valorem.

It is only since the Treasury Department's recent decision setting a standard for so-called granulated rice, that this has been done, and it makes the article a trifle more expensive; it is also mixed with the ordinary broken rice.

The rice crop this year in Rangoon, Bassein, and Akyab are good, and the rice in Rangoon, and especially Bassein, of superior quality. In Akyab the quality of the rice is inferior.

ALBERT LOENING,
Consul.

UNITED STATES CONSULATE,
Bremen, July 30, 1887.

MINING IN THE PROVINCE OF LIEGE.

REPORT OF CONSUL PRESTON.

There are 37 metallic mines in the province of Liege; of these only 5 were in active operation in the year 1886. There were 7 steam-engines in use, with 174 horse-power, for the extraction of metal, and 18 engines, of 1,782 horse-power, for drainage and exhaustion. The number of workmen employed was 582 in the interior of the mines and 418 on the surface; in all, 960.

The production was as follows:

Description.	Quantities.	Value.
	Tons.	Francs.
Iron	60,061	442,785
Lead	862	78,840
Calamine	6,824	281,150
Blend	12,418	620,445
Pyrites	2,709	25,880
Manganese	750	1,000
Total		1,308,080

The amount of wages paid was 631,570 francs; other expenses 476,820 francs; total expenses of the mines, 1,108,390 francs.

The production of iron was 14,535 tons less than in 1885; that of lead 333 tons more; that of zinc 687 tons more; that of pyrites 1,034 tons less, and that of manganese 750 tons more.

The Société Nouvelle Montagne has been successful in the mine Mallieue. This is the most productive mine in the province; the only one, in fact, besides the iron mines, which gives much promise for the future. The société has not attempted to increase the production, which remains the same as in 1885, viz: about 12,000 tons of blende and 500 tons of pyrites and black-lead.

There has been a falling off in the production of iron ore, partly on account of the low prices and an increase in the production of lead and zinc. The financial results have been generally satisfactory. The average annual wages of workmen is 658 francs, 100 francs less than in the preceding year. This is accounted for by the greater proportion of employes on the surface being women and children, employed in the preparatory workshops.

METALLURGIC INDUSTRY.

The difficulties of the situation of this industry became greater in 1886 than in the preceding year. The production kept up, but the value of it suffered considerable reduction. An agreement entered into by the owners of the furnaces in 1886 stopped the decline of prices of sheet-iron. Several of them were accustomed to manufacture (as well for home consumption as for export) products of superior quality, which found relatively an easy and remunerative sale, by reason of the reputation their trade-marks had established. But the competition of the Germans has been too much for them, and the latter have succeeded in controlling the market. In consequence of this the manufacturers, for lack of orders and to keep their workmen employed, resorted to producing poorer qualities, which they could sell at less price. This partly explains the diminution in the value of the products of the founderies.

As for the steel factories, in spite of considerable increase in production, the value declined, but this only occurred in those factories that were obliged to put down their prices to meet foreign competition.

Towards the end of the year 1886 important orders from the United States gave impulsion to the iron industry, but it seemed to be temporary, and unless it continues their difficulties will return.

The formation of an international syndicate of zinc manufacturers resulted in limiting the production of this metal, but they did not accomplish all the results they anticipated from this measure; prices only slightly increased, and the consumption decreased in consequence of the low price of lead, to which zinc had been preferred for most uses.

MANUFACTORIES OF IRON.

The following table gives the number of furnaces, consumption, working, and production:

Number of blast furnaces:	
• In activity	11
• Inactive	5
Average number of work days per furnaces	365
Motors:	
Including locomotives	85
Horse-power	1,970
Number of workmen employed	962
Average salary of workmen per day	francs.. 2.67

Consumption.

Ore:		
Belgian	tons..	75,884
Foreign	do ..	405,880
Iron and grape-shot	do ..	49,596
Castine	do ..	107,124
Combustibles:		
Coke	do ..	255,796
Coal	do ..	7,984

Production.

	<i>Tons.</i>	<i>Francs.</i>
Affinage cast, including manganese	93,201	3,882,880
Cast for Bessemer and Thomas steel	147,837	7,998,965
Total production	241,038	11,880,745

Of the 15 blast furnaces in the province only 11 were in active operation in 1886; but these continued throughout the year. The total production was fully equal to that of the year preceding.

As the manufacturers would not give the relative proportion of Bessemer and Thomas steel, I am unable to indicate it.

The consumption of cast-iron, of Belgian, working, in the steel factories of this province amounted in 1886 to over 10,000 tons.

The following table gives the minerals consumed and the countries from which they were taken :

<i>Countries.</i>	<i>Minerals consumed.</i>	
	<i>1885.</i>	<i>1886.</i>
	<i>Tons.</i>	<i>Tons.</i>
Belgium	103,108	75,884
Grand Duchy of Luxembourg	157,886	160,085
Germany	6,142	3,806
France	16,905	24,977
Spain and Algeria	149,511	171,765
Russia		3,976
Others not mentioned, imported at Antwerp and Rotterdam	35,230	35,161
Total foreign	365,784	405,880
Total consumption	467,842	481,744

MANUFACTORIES FOR WORKING IRON.

The number of factories for the production of steel has increased; there are now 10 of these, besides 2 (those of Cockerill and Fabrique de fer d'Ougrée) which possess their own founderies of this metal; the production is said to be about 2,000 tons, half of which were sheet and wire.

There are 27 factories in all for working iron, employing 288 steam motors of 7,362 horse-power and 4,961 workmen, whose average daily wages are 2.95 francs each.

The total production of the 27 factories was 2,286 tons more than in the preceding year, being 119,339 tons of a value of 16,312,361 francs.

MANUFACTORIES FOR WORKING STEEL.

The production of the steel factories increased in 1886, but the decline in price gave unfavorable results. The number of engines employed was 128, of 5,561 horse-power.

The number of workmen employed was 1,998, at the mean average wages of 3 francs 37 centimes per day.

The total consumption of coal in these shops was 115,548 tons.

The production of steel in the foundries and rolling mills exclusively occupied in working their own production was, in cast ingots, 127,735 tons; of hammered steel, 8,876 tons; the total value of which was 10,638,898 francs.

The production of steel of all kinds, sheets, bands, rails, wire, etc., in the mixed factories was 114,918 tons, of a value of 13,366,239 francs.

DIVERS MANUFACTORIES.

Lead.—There are in this province two factories of lead in active operation, 16 furnaces for reduction, with 16 steam and hydraulic engines of 146 horse-power, employing 400 workmen, at the average wages of 2 francs, 72 centimes per day.

Of the ore consumed, 1,352 tons are Belgian production and 11,246 tons of foreign. The production of these factories are, of lead, 8,665 tons, of the value of 2,485,500 francs; and of silver, 14,757 kilograms, of the value of 2,454,504 francs.

Foundries of zinc.—There are 10 manufactories of zinc in active operation, with 276 furnaces of reduction and 22,450 crucibles. There are 62 steam and hydraulic motors of 1,191 horse-power.

The number of workmen employed is 3,605, at the average wages of 3.13 francs per day.

Of the ore consumed, 18,277 tons is of Belgian production and 177,394 tons foreign.

The amount of coal used in the machines is 398,616 tons. The production of rough zinc is 79,246 tons, of the value of 339.60 francs per ton, a total of 26,911,789 francs.

The production of gross zinc has diminished 1,052 tons, the result of an agreement among the zinc producers of Europe to limit their production. The following table gives the amount of ore used here and the countries from which it is imported:

Countries.	Quantity.	Countries.	Quantity.
	<i>Tons.</i>		<i>Tons.</i>
Sardinia	3,216	America	202
Italy	51,070	Austria	788
Greece	14,119	Divers others not indicated	423
Spain	27,517		
Sweden	25,824	Total foreign	177,394
Germany	22,499		
France and Algeria	28,691	Belgium	18,277
England	8,460		

There are 10 manufactories in active operation to work the zinc, with 27 rolling trains, 27 steam and hydraulic motors of 1,008 horse-power. Four hundred and forty-one workmen are employed, at the average wages of 3.29 francs per day.

The consumption of coal is 14,421 tons; of gross zinc, 29,136 tons; and old zinc clipping, 320 tons. The production is 28,719 tons of sheet zinc, of the total value of 11,404,298 francs.

STONE QUARRIES.

The number of quarries is 297, with 5 steam-engines of 49 horse-power. Four thousand one hundred and forty-three workmen and 215 horses are employed.

The value of the production is 4,731,480 francs.

The value extracted is 481,035 francs less than in 1885, principally in paving stones.

The following table gives the quantities of the various extractions of the quarries with their value :

Decription.	Quantities.	Value.
Paving stones.....pieces.....	13,508,800	<i>Francs.</i> 1,013,500
Calcareous freestone.....cubic meters.....	24,282	2,002,375
Lime, rag stone, pebbles.....do.....	375,905	1,374,025
Castine (cobble-stone).....do.....	33,500	84,265
Plastic clay.....tons.....	243	8,125
Other products, tiles, chalk, gravel, flints, and dolomite.....		204,635
Total value.....		4,731,480

WM. S. PRESTON,
Consul.

UNITED STATES CONSULATE,
Verviers and Liege, September 8, 1887.

SILVER MINING IN THE BARRIER RANGES, NEW SOUTH WALES.

TRANSMITTED BY COMMERCIAL AGENT THOMAS M. DAWSON.

[Extract from the Sydney Mail, Saturday, August 20, 1887.]

The visit of the minister for mines and the minister for justice to the Barrier Ranges will probably be instrumental in attracting the attention of those who now guide the destinies of the colony to the enormous wealth which, drawn from the bowels of the earth, is slipping away steadily and surely from our grasp, and passing into the hands of those whose interests are opposed to ours. The Broken Hill Proprietary Company's claim is the great center upon which the hidden treasure is developed. Its story is an interesting one. A game of euchre for one-fourteenth of the mine was played, and although a full share did not represent the stake, the then value of that share depended on the result of the game—depended, indeed, on one man holding more trumps than his opponent. The scene occurred at Mount Gipps homestead one night about three years ago, when Mr. McCulloch, the manager, and Mr. Cox, an employé on the station, played euchre to decide whether the latter should give the former £150 or £120 for a fourteenth share in the Broken Hill mines, which were just then being prospected. Mr. Cox won, and has since had reason to bless the genius of the man who, to please his royal master, the mad King of France, invented a pack of cards. Monte Carlo has been the scene of many a huge gambling transaction, but it is doubtful if ever the result of a single game equaled the present value (nearly £200,000) of the stake played for in the Mount Gipps homestead. Mr. Cox was not particularly anxious for the share, but with what different emotions would he and his opponent have dealt the cards had they known what would take place within such a short space of time.

The chances were a million to one that that game of euchre would never have been played. Four years ago boundary riders crossing the rugged surface of the Broken Hill little dreamed of the treasure lying hidden beneath, nor did they imagine for a moment that the metallic ring of their horses' hoofs on the ironstone rocks was only a prelude to the ring of hundreds of hammers and picks and the steady roar of furnaces. Broken Hill then formed a portion of Mount Gipps station, the homestead of which was distant some 12 miles. The discovery of silver at Thackaringa and Umberumberka led every one on the Barrier Ranges to take more or less interest in silver mining, and particular attention was paid to country possessing the slightest mineral characteristics. Towards the end of September, 1883, a boundary rider on Mount Gipps Run, named Charles Rasp, while mustering sheep in the vicinity of Broken Hill, was attracted by its mineral appearance and formation. Mentioning the matter to Mr. George McCulloch, manager and part owner of the station, it was decided to peg out Broken Hill, in the expectation of discovering a tin mine—the existence of silver not being then thought of. McCulloch and Rasp

took up the whole of Broken Hill, which in the aboriginal language is known as Wilyu-wilyu-yong; the ground being applied for in the names of George McCulloch, G. A. M. Lind, and George Urquhart, the two latter being, respectively, storekeeper and overseer on Mount Gipps Run. In all seven blocks, or a total of 2 miles, were secured on the line of reef. A syndicate, under the title of the Broken Hill Mining Company, was formed, Messrs. G. McCulloch, Phillip Charley, Lind, David James, G. Urquhart, C. Rasp, and James Poole holding shares in equal proportions. After several months' prospecting had been done with little success, Messrs. Lind and Urquhart sold out, and the syndicate shortly after was merged into a company of fourteen shares. This company, on August 12, 1885, was formed into "The Broken Hill Proprietary Company, limited," of 16,000 shares, 2,000 being issued to the public at £9 each, paid up to £19, while the remaining 14,000 shares, paid up also to £19, were retained by the shareholders. The actual expenditure previous to the mine becoming self-supporting was about £4,000, and such has been its extraordinary success since that at the current price per share, viz, £140, the present value of this great Comstock of Australia is £2,240,000. To this, however, must be added the market value—half a million sterling—of block 14, which has been distributed among the shareholders, while blocks 15 and 16 are both to be floated into a company at an early date. Of the first syndicate of seven there are only Messrs. McCulloch, Rasp, James, and Charley who hold shares in the present company. In that originally formed the fourteen shareholders were Messrs. W. Jamieson, W. C. Dalglish, Solomon Wiseman, C. Rasp, K. E. Brodribb, Bowes Kelly, E. Thomson, David James, W. R. Wilson, James Poole, A. W. Cox, G. McCulloch, and P. Charley. The present directors of the company are Messrs. W. Macgregor (chairman), G. McCulloch, W. R. Wilson, D. E. McBryde, K. E. Brodribb, Bowes Kelly, and D. W. Harvey Patterson; and the local committee, Messrs. McCulloch, Kelly, Brodribb, Reid, and Sully. Mr. W. Knox is secretary of the company, the head office being in Queen street, Melbourne. A mine in which nearly 700 hands are employed and from £1,800 to £2,000 paid away weekly in wages necessarily requires experienced supervision. Those upon whom the greatest responsibility lies are Mr. S. R. Wilson, general manager; Mr. Richard Piper, mining manager—the genial Mr. Piper who chaperoned the ministers through the labyrinthian windings of the underground works—and Mr. H. H. Schlapp, metallurgist and smelter. Mr. J. C. Clark is accountant, and Messrs. Jobson, Pogue, and Savage, assayers. In the mining department—including miners, ore classifiers, timber men, engine-drivers, carpenters, saw-mill hands, horse-drivers, and laborers—full 420 men and boys are employed. At the smelters there are 150 more, and with 110 general construction and knockabout hands, a total of 680 is reached. This number, however, varies according to the amount of contract work on hand, but it rarely falls below 650. About the end of 1884 carbonate of lead and iron of low grade were discovered on the surface of the Broken Hill, and this led to the sinking of what is now known as Rasp's shaft. Chlorides were shortly afterwards found in surface ironstone on the spot where Brodribb's shaft has been sunk, and then came the discovery of rich kaolin ore in the vicinity of Knox's shaft. To Harry Campbell, a black boy in the employ of Mr. Jamieson, a surveyor, is due the credit of having first brought the kaolin to light. Detecting the presence of silver in some stone he picked up, the black fellow handed it to Mr. Jamieson, who soon after discovered its true value. Here it may be remarked that kaolin is decomposed felspar—in other words, a sort of porcelain or China clay, in which silver was previously seldom known to exist. Vast deposits of kaolin are to be found in Cornwall and in many of the American mines, but it was not until Mr. W. R. Wilson, one of the directors of the Broken Hill Company, took specimens to America last year that the presence of rich silver in kaolin gained any credence. Prospecting is now being done in many of the largest mines with a view of proving the existence or otherwise of silver in the kaolin porcelain clay.

At the 100-foot level in Rasp's shaft a plat or chamber was cut, and by cross-cutting the lode was found to be 14 feet in width, and composed chiefly of iron, with a small percentage of carbonate of lead, assays showing that silver existed in barely payable quantities. After driving 49 feet north and 90 feet south, sinking was resumed to the 150-foot level, where the lode to a width of 21 feet carried carbonate of lead to a greater degree than in the upper level, and was consequently of a more remunerative character. Ninety-four tests gave an average of over 90 ounces of silver per ton. Drives were extended north and south from the level, and at the 212-foot level the lode was again struck, its width here being 20 and 80 feet. With cross-cutting and driving, the lode proved to be immensely rich, 45 assays averaging 300 ounces of silver per ton. Cross-cuts about 50 feet apart were put in across the lode, the drive extending to nearly 300 feet. Here blocking out was commenced, the whole of the lode between the hanging-wall and the footwall being removed in sections, and the space filled in and secured with strong timber. At the same time passes or shoots were left as a means of obtaining the stuff from the slopes above

by gravitation. These back or overhand stopes have been worked for fully twelve months, and are now yielding ore in bulk estimated to assay about 60 ounces of silver to the ton. The ore is of a free smelting nature, containing sufficient carbonate of lead, iron, and manganese to admit of easy treatment and little trouble in fluxing. The present depth of Rasp's shaft is 278 feet, at which level a chamber has been opened out, and cross-cut put in a 34-foot lode. The latter consists of galena, carbonate of lead, a sprinkling of zinc blend, known to miners as black-jack, and a small portion of garnet sandstone. Bulk assays of the lode stuff gave 36 ounces of silver per ton and 42 per cent. of lead. This is regarded as a fair return, but better results are anticipated with deeper sinking, the lode being now in a transition state, or, in mining parlance, "between wind and water." At the last-mentioned level a gradual change that is taking place in the lode was pointed out to me, the carbonate and the sulphide ore being beautifully blended, but the latter having a decided preponderance. Operations were suspended in this level for some weeks, in order to ascertain whether silver existed in the galena or in the zinc blend, the latter being a base metal and apparently difficult of treatment. Experiments made, however, within the past few days indicate that silver in payable quantities exists in the galena, and that by a simple process of concentration the zinc blend can be got rid of with a slight loss of silver, after which the easy and profitable treatment of the galena becomes a mere matter of detail. Rasp's shaft is 6 feet by 4 feet, within timber, and has only one cage-road, close divided from the ladder-road, on which the men descend and ascend. The footway is put in at an easy angle, sollars or platforms of wood being constructed at the end of every 30-foot ladder, so that should the person descending lose his hold, the fall would be broken by the platform. The winding appliances consist of an 8 horse-power Tangye engine; but as soon as this is worked up to its fullest capacity it will be replaced by a more powerful plant.

From the 150-foot level in Rasp's shaft a level extends 285 feet north in close proximity to the boundary of block 14, and here high-class massive lead ore has been obtained. Twenty feet above this level No. 1 tunnel extends from the base of the hill 125 feet below Rasp's brace. This tunnel runs through country rock, or dead ground, for 410 feet, at which point the lode was tapped. The latter proved 182 feet wide, 60 feet being payable lead and silver, 40 feet iron and manganese, and the remainder composed of highly silicious matter.

No. 1 air shaft lies about 50 yards south of Rasp's, and is sunk to the 212-foot level, through carbonate of lead ore, rich in lead, but with a small percentage of silver. Farther still to the south is McCulloch's shaft, 10 feet by 4 feet, clear of timber, and sunk to a depth of 330 feet, with drives at 150, 216, and 315 foot levels. At the first-mentioned level the lode, composed of silicious iron, gossan, and carbonate of lead, showed up 70 feet in width. The north drive communicates with No. 1 tunnel and No. 1 air shaft in Rasp's. Between the latter and McCulloch's shaft some good ore has been obtained, this being treated by furnace as it comes direct from the shaft. At a level of 216 feet the carbonate of lead ore forms a lode 108 feet wide. The bulk of the ore is forwarded direct to the furnaces; but in this, as in other champion lodes, there are bands or seams of silicious matter which require treatment by concentration.

A drive extending north, to communicate with Rasp's shaft on the course of the lode, passes through immense bodies of intrusive rock, one of which is 32 feet and another 140 feet long. In the vicinity of these rocks, of such richness was the lode that assays gave from 40 to 400 ounces of silver per ton. Both the southern drives run 400 feet on the hanging-wall and the foot-wall, respectively, the lode being so large that working by one drive was next to an impossibility. Carbonate of lead ore, with occasional patches of quartz and garnet sandstone and very rich pockets of chlorides, constitute the stuff passed through so far. The whole block of 108 feet is estimated to yield at the rate of 40 ounces of silver and 40 per cent. of lead. By opening out at the lowest level 316 feet, it was anticipated that the lode would be cut to the east after driving 15 or 20 feet; but owing to the singular formation of the ground, the intrusive rock before-mentioned coming in and leaving it far in an easterly direction, a distance of 110 feet had to be driven before striking the lode. The latter, at this point, consists of silicious galena and quartz, mixed with iron and copper pyrites. Barely 40 ounces of silver and slightly over 40 per cent. of lead was extracted from the galena, while assays from the quartz gave a return of 12 pennyweights of gold per ton. In this level I was shown the spot from which a large block of country rock had been removed to make room for a steam compound duplex condensing pumping plant, equal to raising 24,000 gallons per hour at a height of 500 feet. This has been supplied by Messrs. Parke and Lacy, of Sydney and San Francisco, and is expected on the ground daily. Following on the erection of the plant, sinking, which ceased six months ago owing to a strong influx of water, will be resumed. When the lode was cut at the 316-foot level, the rush of water

was so strong that the men were driven from the faces, and it took a week's baling, with tanks of 200 gallons capacity, at the rate of 40 tanks per hour, to get the water under.

In connection with the shaft are three compartments—two for winding and one for pumping, the latter having a complete ladder way. The shaft is also close-timbered in a most substantial manner. Huge poppet-heads, 50 feet high, tower above the mouth of the shaft; and here also are to be noticed Tangye's two 9-inch cylinders and drums, etc., combined, forming a very complete plant.

Threading our way along a roomy drive for about 170 yards south, we reached No. 2 air-shaft, which is down 196 feet. Extremely silicious ore has been found in nearly the whole of the intervening country, and this ore is now being stacked, with a view to treatment when proper appliances are at hand. In a few days the connection will be complete between No. 2 tunnel and the 216-foot level in McCulloch's shaft. The central portion of this great mine will then be thoroughly ventilated, No. 2 tunnel being put in from the base of the hill, 120 feet south of the shaft and 195 feet below the cap of the outcrop. The lode in the tunnel runs 60 feet wide, is of silicious iron and gossan, and was cut after driving 506 feet. Levels have been driven north and south for a considerable distance. That on the north is yielding low-grade carbonate ore, but the south drive, after having remained idle for some time, is shortly to be pushed on to communicate with North Patterson's shaft, 280 feet farther south. This latter by competent authorities is considered to be the best engine shaft on the Barrier silver-field. It is 18 by 5 feet in the clear, well-timbered, and divided into three compartments for winding and pumping, and is sunk 140 feet in the foot-wall country. A couple of 32 horse-power direct-acting, spider-gear winding engines have been ordered from Messrs. Tangye, and preparations are being made for their erection within the next few days.

Brodrigg's shaft, situated slightly to the southwest of McCulloch's, is down 300 feet. Two drives extend north from the 66-foot level, one being 270 feet on the foot-wall, and the other 240 feet on the hanging-wall. A connection by means of cross-cuts has demonstrated the fact of the lode being fully 60 feet in width, and from this iron ore, not only payable as regards silver, but acting also as a flux for other ores, has been raised. The southern drive on the hanging-wall opens out to the brace of Jamieson's shaft, owing to a dip in the surface, while the foot-wall drive, from which patches of payable ore have been extracted, runs 100 feet to the south. High-class iron ore of a silicious character has been taken from the drive extending 121 feet north from the 132-foot level; and in the south drive, running to Jamieson's shaft at the 76-foot level, patches of rather low-grade ore have also been exposed.

The shaft is being enlarged for the purpose of erecting more powerful winding machinery, only a small steam winch or donkey-engine and buckets representing the machinery used at present for hoisting the lode stuff. Some distance to the north rises a magnificent outcrop of manganic iron, about 60 tons of which is used daily for fluxing purposes. Going back to the southern course of the lode we come to Jamieson's shaft, 310 feet from Brodrigg's, and down 225 feet. At the first level of 76 feet the lode—composed of kaolin and iron ore, low in silver, but answering admirably as a flux—proved to be 66 feet wide. Communications were opened up on the hanging-wall with Knox's shaft, while on the foot-wall portion a rise was put up, which yielded large quantities of excessively rich chlorides of silver. Some of this assayed up to 9,000 ounces, and the whole averaged over 700 ounces per ton.

Extending south, at the 142-foot level, are two drives, from which considerable quantities of valuable kaolin and iron ore have been taken, and two stopes worked in the back are giving, I was informed, 150 ounces of silver per ton.

Descending to the 208-foot level, I found that the lode here was 108 feet in width, or slightly larger than at the previous level, the character of the ore varying in a most extraordinary degree. At one point was to be seen quartz charged with chlorobromide of silver, next came a deposit of iron and manganese, then followed masses of kaolin ore, the whole being of a highly payable character.

Four feet below the level above mentioned the water-line was struck, and underneath this again silver has been raised in the form of chloro-bromide. This fact has tended to upset the theory of mining experts and scientists that chloride of silver does not exist below water-mark. In the opposite direction also a hard and fast rule has been swept away, sulphides having been found above the water line. It is a matter for regret that during the past week the flow of water, amounting to between 80,000 and 90,000 gallons per diem, should have been so strong as to stop all work in the shaft. The present pumping plant is not sufficiently powerful to keep the water down, and until more powerful machinery is erected the overflow can not be checked. What with this and an accumulation of ore, both at surface and underground, together with necessary alterations in the brace, etc., preparatory to the starting of the new winding plant, between 25 and 80 men will have to remain idle for fully a fortnight.

Some distance on the level towards Brodribb's shaft the formation is of quartz and garnet sandstone. This, owing to the preponderance of silica, can not be treated by smelting direct, so the probabilities are that the company will have to resort to amalgamation, on the system pursued in the treatment of gold. Massive poppet-heads and powerful winding gear, etc., erected on this shaft, give a thoroughly substantial tone to the surface improvements.

Knox's shaft, used for ventilation and as a ladder-way for the miners, lies 200 feet south of Jamieson's. As the result of stoping in the back of 66-foot level, remarkably rich kaolin ore has been extracted, and, judging from appearances, I should say that thousands of tons still remain waiting for the pick, shovel, and powder to detach them, and the cage to bring them to the surface. Very little has been done at the 182-foot level, but on the lowest, of 208 feet, cross-cuts indicate that the lode is fully 150 feet wide.

Barely 60 yards beyond Knox's shaft stands No. 5 shaft, sunk through iron and kaolin ore to a depth of 60 feet. Work ceased here fifteen months since, the efforts of the company having been directed to the development of the northern portion of their blocks. The company's property extends nearly half a mile south from No. 5 shaft, and in this direction some good iron-ore, which as a flux can not be excelled, has been exposed all along the surface.

The steady roar of the furnaces is to be heard day and night, Sundays and week days. When darkness sets in their red eyes gleam brightly out and illumine the greater part of the hillside, showing the moving figures of the workmen clearly outlined against the somber background of rock and shrub.

But though the smelter, which is under the experienced management of Mr. Schlapp, works continuously, underground operations are confined to the period between midnight and Sunday and 11.30 p. m. on the following Saturday. As far as practicable all work is done on the contract system, the contractors taking all risks as regards health, accidents, etc. With the weekly wages men the case is different. Many of these work in the "lead shoot," as the drives and tunnels where carbonate of lead predominates are termed, and consequently are subject to lead poisoning. In order to guard against the latter the miners are shifted every fortnight, but still many of them are seized with this more dangerous complaint, one from which recovery is both difficult and prolonged. Extreme cleanliness, temperance (particularly as regards alcohol and tobacco), purity of blood, and a diet of milk and fats, are the only safeguards against lead poisoning, and these Dr. Seabrook, the experienced medical officer to the company, impresses in every possible way on the men working in the unhealthy atmosphere. Lead poisoning is sometimes brought on by miners cutting up tobacco and rubbing it with their hands while at work. The lead dust consequently becomes mixed with the tobacco, and is drawn into the lungs with every puff of the pipe. Thus the weed which nature intended, according to experts, as a solace to the nerves, acts as an agent to convey into the system an insidious poison. The general symptoms of being leaded are a slight bluish tinge or discoloration of the gums, an earthy pallor of the countenance, colic and constipation, great debility, and various symptoms of affection of the nervous system. An immediate removal from the cause, hot baths and generous diet, constitute, with special medical remedies, the treatment in early stages. The medical officer in charge of the mine has been fairly successful in his mode of dealing with lead poisoning. It may be mentioned here that many of the company's employés entertain the idea that they are leaded whilst in reality suffering from attacks of other complaints, such as colic, etc.; and some even, as the medical officer informs me, when wishing for a legitimate "call off" from work. The erection of hot-water baths has been recommended by Dr. Seabrook as one of the means to prevent lead poisoning. An accident fund now being started among the miners receives support from visitors to the claim.

Every one inspecting the underground workings is required to pay 5s. towards this fund, and indeed the trip below and through the drives and the information gained is cheap at double the money. Not that the visitor, inexperienced in silver mining, is much the wiser, from a practical point of view, for his trip below. He will soon become confused among the drives and stopes and tunnels, and will, after all, have but a hazy idea regarding the relative value and meaning of chlorides, galena, argentiferous ore, schist, kaolin, and the many other abstruse terms in silver mining. These are simply a perfect abracadabra to the inquisitive novice, who pesters the unfortunate guide with a hundred questions per minute, and who when everything is good-naturedly explained to him is none the wiser for the information. The better way is to look as wise as possible and say as little as possible. "Keep your arms well in to your sides and hold tight to the bar above," was the advice tendered to us by Mr. Richard Thomas, the obliging underground captain as, dressed in mining costume, we stepped into the cage. The signal was given, the engine smothered, the wheels revolved, and down we went, easily and noiselessly. At the first level our

exploration of the mine commenced. Candles were supplied us and, following our guide, we traversed drives and labyrinths hewn out of the solid stone, coming on knots of men hard at work with pick and gad in some places, and in others meeting the truckmen with loads of ore for the surface. As we descended and ascended in the cages and on ladders, we saw that the work everywhere was the same, and that everything was being carried out in a systematic manner. The phantasmagoria that exist below, the beautiful streams of silver glittering from every rock and crevice, the veins of ore miles and miles long, the lovely fairy-like caves, the enchanting grottoes, and the elfin dells, which some visitors like to describe so graphically to their wondering friends, could not be found by our party. The only grotto, or rather fissure, we saw was one which we had cause to remember. This opened into one of the drives. The aperture was small, but the delicate crystalline stalactites hanging within looked far too tempting to be passed by. One of my companions, a well-built athletic Victorian squatter, essayed to enter and detach some of the stalactites. So did I, but after monkey, bear, and 'possum practice, and sundry bumps, scratches, and bruises, we both came to the conclusion that the rights of property should be respected, and that the Broken Hill Proprietary Company had a greater claim to those stalactites than we had. There is indeed little of the fairy-like, ethereal, or spirituelle associated with the underground workings. Everything done is like the rudder of a vessel, a stern necessity, and the men who, in cotton or flannel shirts and moleskin trousers, earn £3 per week by pick and shovel, will tell you that there is nothing of a poetical nature in connection with their eight hours' hard work.

An almost perfect system of ventilation has been organized with regard to the underground workings. In addition to the main or surface air-shafts there are several winzes, which serve as air passages and for gravitating mullock or debris to fill up the stopes left vacant by the removal of the ore. The winzes are 6 feet by 4 feet, timbered and sunk in the lode at such distances apart as to cause an upward and downward draught. It is worthy of observation that although warm at times, from the lightness of the atmosphere above, no foul air concentrates in the drives and tunnels. The shafts, from which no levels extend, are close divided, so that the pure, fresh air rushing down one compartment drives what little impure air there is up by another division. Stopings is a term which, although ambiguous to the majority of people, is yet explicit enough to those interested in mining. In the Broken Hill claim the overhand system of stoping is adopted. This simply means that the pick is mostly employed in opening out a chamber in the lead ore to a height of, say, 7 feet, the width varying according to the extent of the lode. Starting from the level of the winze, a section, generally 6 feet or 7 feet wide, is taken out, the stuff gravitating through a shoot to a lower level. Here the shoot is protected by a sort of trap-door, which regulates the quantity of stone falling into the truck under the mouth of the shoot. As quickly as each truck can be filled it is pushed along the tramway to the cage waiting for it in the shaft, up which it is drawn in a few seconds. Stoping has been done along the course of the lode, in some instances to a distance of 20 or 30 feet, the space being afterwards filled in with mullock sent down from the surface. Another section, parallel with the first, is then removed, and if the ground be at all of a loose nature, sets of timber are put in, and country rock banked against the mulga poles or bars, which are set to form the sides of the section.

In several of the stopes I noticed that every care had been taken to prevent the ground from falling in and burying the miners; the timber, although not so heavy as that in the main drives, being sound and well put together. In only one spot did I observe the wall and roof in any way dangerous looking, and this, I understand, will very shortly be rendered quite safe by timbering. The greatest extent of stoping has been done from the 212-foot level, in Rasp's shaft, where the lead ore, being of a friable nature, crumbles fine as it falls from the pick, whereas in Brodribb's and Jamieson's shafts, the iron ore comes down in heavy lumps or masses. Stoping will be conducted on an extensive scale immediately additional smelters are erected. At present some 4,000 tons of ore per month undergo treatment at the five 30-ton smelters. In addition to these, three new 80-ton smelters will, in the course of a few months, be ready for work, and then it is estimated that 10,000 tons of ore per month can be put through. Even with this increased power many long years are likely to elapse before the last truckful of ore is brought from the bowels of the Broken Hill claim. All through pick work is for the most part done, powder and dynamite being only required in ground where there is a preponderance of iron. The expense of sinking, driving, and tunneling is consequently not so great as in hard ground, while the comparatively soft-rock formation admits of high, roomy drives being formed. Free and easy traveling is thus insured to every part of the mine, except in odd instances, where an accumulation of ore has partially blocked up the drives, and where the explorer, unaccustomed to crawling, is painfully reminded of

the doom passed upon the serpent in Scripture, "Upon thy belly shalt thou go, and dust shalt thou eat."

Going through the drives one is struck with the massiveness of the timber supports, styled legs, and the roofing, which is known in mining lingo as caps. These latter are from 4 to 6 feet long, between 12 and 18 inches in diameter, and rest on legs 7 feet in height, of almost similar size, and fixed in ground sills 3 feet apart. The ground sills, or timber plates, laid like the sleepers of a railway line, constitute a firm and substantial bed for the tram lines which run along nearly every drive. Both caps and legs are of creek gum and sugar gum, the former timber being the nearest possible approach to the veritable red gum, and the latter a sort of bastard blue gum. Red gum is conveyed by bullock teams from the Darling River, via Menindie, about 80 miles distant, while the sugar gum comes all the way from the South Australian state forests. The latter timber is carried by rail from Wirrabara, near Port Pirie, to Cockburn, the terminal station on the border of this colony, and 35 miles distant from Broken Hill. The caps and legs cost from 5s. to 10s. each delivered at the claim. Very little work has been done below water-level, so that the whole of the underground workings are comparatively dry. The only great rush of water is in Jamieson's shaft, which has now ceased work in consequence. Only one tunnel runs right through the hill. This starts from a point nearly midway between No. 2 air-shaft and Patterson's, and continuing for about 500 feet opens out on the eastern side of the hill. The tunnel is 7 feet wide and 6 or 7 feet in height, runs most of the way through the inclosing rock, and proves the lode to be 60 feet wide. The two other tunnels, Nos. 1 and 2, mentioned in a previous article, start from the eastern side of the hill and penetrate the lode before reaching the drives. To wander along all the different drives and tunnels would occupy several days, there being miles and miles of excavation; in fact, for fully half a mile in length and several hundred feet in breadth, the hill is partially honeycombed. To give an idea of the rapidity of the explorations, six men have driven levels at the rate of 100 feet in three weeks, the levels being 7 feet high and 4 feet wide.

Rising from within a few hundred yards of the main street of the township, the Broken Hill, although of a fair height, is by no means majestic or picturesque. Mulga scrub and scanty herbage clothe its rocky sides, and it is crowned with outcrops of what has been proved to be valuable stone. Perched about half way up the hill the smelters look down on the town, while a quarter of a mile away to the north lower down are Mr. Schlapp's, the metallurgist's, house, and the company's office, surgery, dispensary, etc., and beyond this again the residences of the manager and mining manager. Plodding wearily up and down the steep cutting leading to the smelting works every hour of the day, the horse and bullock teams have anything but an easy life of it. The company own about 20 draft horses of a splendid stamp, but these are employed exclusively in the vicinity of the mine. The carting to and from Cockburn, 35 miles distant, is done by teamsters, who load with coke, machinery, and general supplies for the claim, and take bullion on the back trip, the carrying rate being 35s. per ton. Viewed at night by the ruddy glare of the furnaces, the red, red gleam of the liquid slag, and the brilliant steel-blue luster shed by the electric light, smelting operations appear singularly weird-like. The five furnaces stand in a line a few feet apart. From the floor overhead the ore is thrown into the cavernous mouths of the iron caldrons. Down, down it falls, crushed, and heated, and melted in the burning, fiery furnace, until at last the bright metal pours in a blood-red, seething, boiling stream from the lower and smaller end of the furnace. None of the changes that the ore undergoes in transmission is visible to the naked eye, and no sound is heard except the thud of the falling stone, the throb of the engine, and the constant roar of the furnaces.

There are, however, preliminary operations, which are best understood by being described in detail. The ore, after being taken out of the shaft, is sorted by men and boys skilled by practice in classifying it. The first-class ore, which includes kaolin, lead, and silicious ores, is sent to the upper floor of the furnace for mixing. This is done by the different ores being placed in piles or heaps, from each of which a certain proportion, with limestone and iron added for fluxing, goes to form "a charge." The latter weighs fully 1,000 pounds, and together with about 140 pounds of coke is placed in the furnace. As the mixture sinks lower and lower with the heat, a further supply of ore and coke is thrown in, and so the work continues day and night, week in and week out, all the year round, except for a day or two when cleansing becomes necessary. The second-class ore, after being sorted over again, undergoes similar treatment to the first-class ore, the inferior being put aside pending the erection of a concentrating plant, the only machinery of this description at present being a couple of jiggers and one buddle. Excavated out of the rocky side of the ridge, and protected in that direction by a stone wall, there is little danger of the smelting floors decaying or breaking down. Huge blast pipes run along the wall 8 or 10 feet from the floor, but there is a marked absence of complicated ma-

chinery, especially in the way of wheels, belts, and rollers. Only one 40 horse-power engine is employed in making the blast; another, a 50 horse-power, American, being kept ready in case of emergency. A small engine drives the electric-light machine, and three steam pumps are used for forcing the water up from the tanks sunk below the furnace floor. The water supply for the boiler is obtained from two large tanks situated three-quarters of a mile from the mine. The furnaces are about 10 feet high, oval-shaped, measuring inside of all 70 by 40 inches. These figures, however, give but a crude idea of their external size, the water jackets on the outside investing them with quite a bulky appearance. After remaining a very short period in the jackets, or space between the furnace proper and the outside covering of iron, the water becomes quite hot. It is then drawn off through a pipe into the cooling tank, from which, when cold, it is pumped back, and again utilized in the furnaces. During the melting process the ore separates into bullion and slag, the former carrying all the lead and silver, and the slag being the refuse. The latter, if correct in chemical composition, will expel all the lead and silver, and the bullion, being the heavier, sinks to the bottom of the furnace. From time to time the slag is drawn off into cast-iron pots, which, being set on hand-trucks, are wheeled away and dumped over into the waste heap. About half an ounce of silver per ton and from 2 to 3 per cent. of lead remains in the slag, this representing the only loss, and one which it would not pay to attempt to recover.

At the bottom of the furnace crucible a siphon connects with the lead well. Into the latter, as it oozes from the crucible, the bullion falls in a red, sputtering liquid mass. Dipping his rod-iron ladle into this, the "tapper" fills the iron molds ranged in a row near at hand. These molds are about 2 feet long and 5 inches broad, and a hand lever at the end insures the ready emptying of the mold, when the burning liquid has settled into a solid bar of bullion, a period which occupies only a few moments. Sampling constitutes the next process. With a half-round chisel a chip is taken from the top of each of five bars, and another chip from the bottom of five other bars. The chips are then melted into a small bar. The latter is assayed in an office devoted to the purpose hard by the smelters, and the assay taken to represent the average value of the "lot" of one hundred bars, each lot being stamped with a number, so that buyers can check the work and quality of the bullion. The bars are stacked in piles containing seventy each during the process of sampling, but are afterwards placed in lots of one hundred, the output representing from one thousand to twelve hundred per day. Each bar weighs about 87 pounds, and either one hundred or two hundred constitute a load for a horse or bullock team. After being delivered at Cockburn, on the South Australian border, the bullion is conveyed by train to Adelaide. From the latter city it is shipped to England, where, at public auction, the mineral wealth of Broken Hill becomes the property of the highest bidder. The bullion varies in quality, according to the grade of ore, from 150 to 350 ounces of silver per ton, the value per ounce ranging according to the state of the market. When the border railway is finished its terminus will be 150 yards below the smelters, and it is then intended by the company to run a switch right along the mixing floors. This will enable the bullion to be loaded direct into the railway trucks, and coke, etc., in like manner landed at the furnace, thus doing away with carriage by horse and bullock teams.

The proprietary company are really working only blocks 12 and 13, or about 80 acres in all, while block 14, or 40 acres, on the north has lately been formed into a separate company. This latter includes the shareholders of the parent company, to whom six shares for every one held in the proprietary company's claim were allotted. Ninety-six thousand shares were thus distributed, the remaining four thousand being still held by the company. The total value of the property is estimated at £500,000, thus representing one hundred thousand shares at £5 each, the ruling price now being £5 3s. per share. It was probably a wise proceeding on the part of the directors to decide on floating block 14 into a separate company. There was such a large extent of ground in the proprietary blocks, and the workings had become of such a colossal description, to say nothing of three years out of the twenty-one years' lease having expired without more than two blocks having been worked, that the shareholders would undoubtedly lose, although in an indirect manner, by any further delay. Already on block 14 three shafts have been sunk, at an average depth of 140 feet. The lode has been cut and good prospects obtained; but it will be some time yet before the mine is fully developed. Mr. S. R. Wilson, who has managed the B. H. P. Company's claim for the past eighteen months, will shortly take charge of block 14. His retirement is caused by the appointment of Mr. W. H. Patton as general manager of the parent company. Mr. Patton was superintendent of the Consolidated Virginia Silver Mining Company and other celebrated companies on the famous Comstock lode. He holds a leading position in the silver-mining world of America, and his great experience will probably be turned to the best account at Broken Hill. Half-yearly reports of the progress of the mine, etc., are issued from the company's

office in Melbourne, and in that recently published are very elaborate and correct plans and sections of the whole of the workings. In connection with the authorship of these, "honor to whom honor is due" has not been carried out. Surveys of the underground workings were made by Captain R. Piper, mining manager, and the plans were drawn by Mr. W. R. Thomas, the well-known draughtsman of the Barrier. Both gentlemen devoted a great deal of time and trouble to the work, going even into the most minute details, but singular to state neither gets the credit of doing it, the names of two Melbourne men appearing on the lithographed plans in place of those of Messrs. Piper and Thomas, which were attached to the original plans. Shares in the Broken Hill Proprietary Company have been ruling extremely high for some months. With a few fluctuations they have risen during the past fortnight from £187 to £145 each. This price makes it next to impossible for small capitalists to operate to any extent. It has, therefore, been suggested, and I understand that the directors have the proposal under consideration, to increase the present number of 16,000 shares to 820,000, or in the proportion of 20 to 1. By this means greater facilities will be given for the investment of capital; but the chances are all the same that the shares will be considerably higher in proportion than under present arrangements. Blocks 15 and 16, which lie to the north of block 14 on the same line of the Broken Hill, are to be placed at an early date on the English market. For this purpose Mr. Knox, general secretary of the company, proceeds in a few days to England. It is an open secret that Mr. Knox intends to try and float a company of 200,000 shares of £5 each, or with an aggregate capital of a million sterling. On block 15 a shaft has been put down to a depth of 120 feet, and another has been sunk on block 16. Prospecting has also been done to a small extent, and mining experts who have examined the ground speak well of its future. The blocks contain an area of 101 acres 3 roods, and the Broken Hill line of lode is to be seen running through them with occasional breaks. Time, however, will alone show if they are of the enormous value estimated by the directors. Two other blocks, Nos. 10 and 11, situated to the south of the proprietary company's claim, will be most likely placed on the market if Nos. 15 and 16 are successfully floated.

A correspondent of the Telegraph estimates the value of the Broken Hill Proprietary Company's property at £25,000,000, and mentions that a new manager is coming from America at a salary of £4,000 per annum.

TRADE OF SHANGHAI FOR THE FIRST QUARTER OF 1887.

REPORT OF CONSUL-GENERAL KENNEDY.

The quarterly returns of the trade of the treaty ports of China, compiled by the Imperial maritime customs, embracing the quarter ending March 31, 1887, were published on the 3d instant. These quarterly returns consist of tables. They contain no comment whatever. The following has reference to the port of Shanghai solely:

Shipping of the port of Shanghai.

Sailing vessels entered.		Steamers entered.		Sailing vessels cleared.		Steamers cleared.	
From—	No.	From—	No.	For—	No.	For—	No.
Coast and river ports.....	73	Coast and river ports.....	383	Coast and river ports.....	24	Coast and river ports.....	425
Japan.....	6	Japan.....	86	Japan.....	7	Japan.....	96
New York.....	2	Great Britain.....	23	Manila.....	3	London.....	13
Sydney.....	3	Hong-Kong.....	10	Puget Sound.....	2	Bremen.....	4
Antwerp.....	2	Bombay.....	7	London.....	1	Marseilles.....	7
Great Britain.....	1	Marseilles.....	5	Hong-Kong.....	1	New York.....	2
Hong-Kong.....	1	Bremen.....	2	Guam.....	1	Hamburg.....	2
Bangkok.....	1	New York.....	2	Vancouver.....	1	Otara.....	1
Fremantle.....	1	Bremerhaven.....	2	Nova Scotia.....	1	Saigon.....	1
Burrard's Inlet.....	1	Singapore.....	1	Macassar.....	1		
Port Blakely.....	1			Akyab.....	1		
Re-entered.....	1			Rangoon.....	1		
				Port Townsend.....	1		
				British Columbia.....	1		
Total.....	93	Total.....	471	Total.....	106	Total.....	551

During the current quarter (ending June 30, 1887), it appears that three steamers and one sailing vessel, each with what is termed a "general cargo," have cleared for New York. The custom-house manifest of the sailing vessel is before me, and I will quote it, as it may be of interest to shippers:

Chinaware, fine	piculs*..	5. 46
Hides, cow	do....	997. 64
Nut-galls	do....	66. 60
Straw braid	do....	3,758.85
Wool, sheep's	do....	665. 19
Hats, straw	pieces..	300, 000
Matting	rolls..	150
Transshipment from Japan:		
Hides	packages..	117

Invoices have been certified at this office recently for cargo to the United States, to be shipped via the Canadian Pacific line; thus it will be seen that a new channel, under British auspices, has been opened, and a portion of its support is derived from American shipments.

IMPORTS.

Cottons.—In reviewing the business of Shanghai for the period embraced in this report, I find that at the opening of the year the spell of "settling time" restricted trade in all its branches. Under the head of "Commercial intelligence," one of our local journals, dated January 4, stated:

Our trade with Chefoo during 1886 approaches closely in its general outline and results to that of the more northern dependencies, viz. a decrease in the off-take of almost everything English and an increase of everything American and of cotton yarns.

On the subject of Tientsin, the same writer remarks:

Inclosed be found the yearly totals of our exports (re-exports from Shanghai) to Tientsin, for the eleven years ending 31st December, 1886, which we leave to tell their own tale, merely remarking, *en passant*, that last year's consumptive off-take shows a decrease on the whole as regards English manufactures, in contradistinction to a marked increase as regards American goods.

The table referred to forms an inclosure to this report.

At the date of the paper referred to above, business in American drills was on a basis of 2.60 taels, net, while the English goods were 2.45 taels.

The first steamers for the north, after the reopening of navigation, left Shanghai March 3. The shipments of the Shanghai dealers met with a quick and profitable sale. The clearances for Tientsin for the season, as far as published by the custom-house, as against those for the corresponding season of 1886 and 1885, were:

	1887.	1886.	1885.		1887.	1886.	1885.
	<i>Pieces.</i>	<i>Pieces.</i>	<i>Pieces.</i>		<i>Pieces.</i>	<i>Pieces.</i>	<i>Pieces.</i>
Gray shirtings	282,030	205,100	108,000	Jeans:			
White shirtings	89,065	107,600	55,400	English	25,040	20,400	4,300
Drills:				American	4,700		
English	22,970	34,400	12,000	Sheetings:			
American	25,200	25,700	3,000	English	6,010	3,100	4,300
Prints	37,104	20,000	0,000	American	117,572	124,400	23,700
Turkey reids	20,225	16,400	17,900	Im. cashmeres	4,250	9,000	7,000
Spanish stripes	948	1,600	500	Cotton lastings	37,692	36,400	24,000
Figured lusters	1,840	1,450	1,880	Lastings	2,961	2,440	1,400
T-cloths, 32-inch	53,345	50,700	42,500	Cotton yarn	8,184	5,500	1,200

* 138½ pounds average = 1 picul.

These figures are given to show the ultimate destination of a large portion of the Shanghai imports.

The following table shows the import of cotton goods during the quarter, as compared with the same period of previous years. What falling off may appear as compared with 1886 has no significance, as the period of a single quarter is too short to be taken as a criterion:

Articles.	1884.	1885.	1886.	1887.
Shirtings:				
Gray.....pieces	737, 184	1,248,890	1,001,183	1,301,777
White, plain.....do	395,276	416,819	390,061	301,649
Dyed, plain.....do	15,878	85,230	26,108	18,463
White, spotted and brocaded.....do	8,779	498	5,473	803
Dyed, spotted and brocaded.....do	20,471	6,768	11,951	24,367
T-cloths.....do	882,951	377,671	317,144	538,156
Drills, English.....do	24,835	42,100	112,672	78,715
Jeans, English.....do	3,340	25,309	39,417	53,189
Drills, American.....do	56,871	70,575	114,825	83,167
Jeans, American.....do	21,000	6,000		1,000
Drills, Dutch.....do		80	660	5,800
Jeans, Dutch.....do	12,440	4,930		6,994
Sheetings:				
English.....do	40,862	68,668	75,136	76,114
American.....do	105,465	162,840	202,735	185,422
Chintzes and furniture.....do	135,469	90,025	123,690	106,519
Turkey red cloths or cambrics.....do	67,778	86,777	71,976	65,974
Damasks, dyed.....do	140	464	27	118
Velvets.....do	1,230	12,006	16,648	11,397
Velveteens.....do	3,372	3,613	9,351	3,530
Dimities.....do		7	512	
Lawns and muslins.....do	48,206	48,756	106,837	23,938
Handkerchiefs.....dozen	78,324	25,687	50,632	109,870
Yarn.....piculs	7,984	10,785	36,308	40,083

Kerosene.—The importation of kerosene from the United States for the quarter was 3,314,015 gallons.

EXPORTS.

The following table describes the exports from Shanghai to the United States, and the quantities exported:

Articles.	Quantities.	Articles.	Quantities.
Feathers.....piculs	10	Silk:	
Hemp.....do	150.31	Pongees.....piculs	60.83
Hides, cow and buffalo.....do	3,084.32	Skins, goat, tanned and un-	
Musk.....catties	85.1	tanned.....pieces	7,540
Nutgalls.....piculs	82	Straw braid.....piculs	7,492.63
Rhubarb.....do	50.34	Straw hats.....pieces	36,000
Rugs, goat-skin.....pieces	11,698	Tea:	
Silk:		Black.....piculs	229.03
Raw, thrown, yellow, re-		Green.....do	24,796.30
reeled, reeled from du-		Wool:	
pions, and spun.....piculs	1,516.22	Camel's.....do	10.50
Refuse.....do	39.06	Sheep's.....do	1,022.78
Piece goods.....dp	9.80		

Re-exports from Shanghai to Tientsin for the last eleven years, compiled from the customs returns.

	1886.	1885.	1884.	1883.	1882.
Gray shirtings.....pieces	1,288,930	1,328,320	1,148,027	1,138,400	1,029,200
T-cloths, 32-inch.....do	338,338	468,828	446,344	451,400	445,100
T-cloths, 36-inch.....do	6,608	5,890			
White shirtings.....do	533,280	598,720	566,821	475,000	470,500
Drills:					
English and Dutch.....do	118,817	134,474	74,170	114,800	119,200
American.....do	280,137	168,960	198,937	190,500	168,000
Jeans:					
English and Dutch.....do	93,076	78,309	70,845	83,400	126,300
American.....do	20,880	14,960	33,820	22,300	
Sheetings:					
English.....do	25,228	43,132	30,135	48,300	36,500
American.....do	978,643	718,092	534,060	363,000	368,500
Dyed shirtings.....do	4,783	24,735	14,687	8,500	9,300

Re-exports from Shanghai to Tientsin, &c.—Continued.

	1886.	1885.	1884.	1883.	1882.
Brocaded and spotted shirtings:					
White	do. 30	1,198	400	94	.....
Dyed	do. 14,618	7,479	14,450	11,450	5,400
Damasks, dyed	do. 320	320	540	940	1,198
Chintzes	do. 78,828	58,871	58,858	65,900	.....
Printed T-cloths	do. 61,506	88,491	24,396	.....	68,500
Printed twills	do. 89,709	46,384	42,872	42,000	.....
Turkey-red shirtings	do. 107,550	118,671	135,201	181,500	130,300
Velvets	do. 4,895	2,436	660	1,300	.....
Velveteen	do. 802	110	178	380	2,400
Handkerchiefs	dozens. 17,135	14,056	13,126	8,700	18,700
Muslins	pieces. 13,361	11,888	17,837	17,800	20,000
Dimities	do. 150	100	300	1,200	1,300
Cotton yarn	piculs. 38,739	27,058	8,209	6,000	4,900
Spanish stripes	pieces. 8,024	8,554	7,458	5,500	6,400
Medium and broad cloths	do. 2,418	2,084	1,554	2,100	808
Camlets	do. 7,250	5,290	6,794	4,300	7,000
Long ells	do. 2,860	2,090	3,300	2,880	2,000
Lastings	do. 13,077	14,466	12,844	11,900	10,700
Lastings crape	do. 140	100	140	140	180
Cotton lastings and Italians	do. 170,042	166,381	152,122	98,800	58,300
Lusters:					
Plain	do. 1,280	450	950	800	.....
Figured	do. 7,698	7,095	14,021	18,000	13,900
Crape	do. 100	.....	210	100	.....
Lead in pigs	piculs. 12,725	8,634	38,897	4,300	13,406
Iron, nail-rod	do. 20,991	16,538	14,122	7,200	16,100

	1881.	1880.	1879.	1878.	1877.	1876.
Gray shirtings	pieces. 1,115,800	975,000	1,218,900	751,600	773,100	1,060,000
T-cloths, 32-inch	do. 513,700	494,100	570,800	390,100	543,900	645,000
T-cloths, 36-inch	do. 536,700	422,900	442,100	251,400	287,100	304,100
White shirtings	do. 199,600	140,500	184,700	103,400	151,500	320,000
Drills:						
English and Dutch	do. 190,300	114,800	259,700	116,600	90,500	104,400
American	do. 152,500	122,300	118,100	62,200	124,900	176,600
Jeans:						
English and Dutch	do. 39,400	34,000	35,400	30,000	38,300	.....
American	do. 369,000	355,000	409,000	187,100	144,800	128,400
Sheetings:						
English	do. 39,400	34,000	35,400	30,000	38,300	.....
American	do. 369,000	355,000	409,000	187,100	144,800	128,400
Dyed shirtings	do. (†)	(†)	(†)	(†)	(†)	(†)
Brocaded and spotted shirtings:						
White	do. 5,800	13,770	22,700	17,700	4,700	21,800
Dyed	do. 1,500	880	2,500	1,800	2,000	4,300
Damasks, dyed	do. 61,100	58,700	62,000	29,200	48,500	56,000
Chintzes	do. 156,700	119,000	121,100	61,700	120,000	272,400
Printed T-cloths	do. 3,200	2,700	845	844	1,700	1,800
Printed twills	do. 30,400	18,800	21,100	9,000	11,500	18,500
Turkey-red shirtings	do. 16,800	11,000	14,900	8,500	5,000	14,900
Velvets	do. 1,100	.....	1,900	.....	1,300	1,700
Velveteens	do. 8,200	6,600	6,400	5,100	4,400	7,500
Handkerchiefs	do. 300	.....	750	800	500	200
Muslins	do. 8,400	7,100	9,200	4,200	5,800	5,400
Camlets	do. 2,100	1,600	2,800	600	1,500	1,400
Long ells	do. 12,400	12,900	11,900	6,200	7,900	11,800
Lastings	do. 549	.....	.....	1,120	.....	.....
Lastings crape	do. 18,400	14,300	37,200	18,700	24,200	33,300
Lusters:						
Plain	do. 8,400	18,000	12,000	5,800	4,300	8,000
Figured	do. 31,600	2,500	15,900	500	1,500	3,300
Crape	do. 8,400	18,000	12,000	5,800	4,300	8,000
Lead in pigs	piculs. 81,600	18,000	12,000	5,800	4,300	8,000
Iron, nail-rod	do. 31,600	2,500	15,900	500	1,500	3,300

J. D. KENNEDY,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Shanghai, June 30, 1887.

TRADE AND PROGRESS IN FORMOSA.

REPORT OF CONSUL CROWKLL.

Tamsui.—Tamsui proper lies at the mouth of a little river called Ho Beh. It is a place of small commercial importance except as a shipping port for the more important commercial center which lies a few miles up the river. A bar extends obliquely across the mouth of the river, and steamers whose draught does not exceed fifteen feet can cross the bar at high tide, though when a heavy sea prevails it is dangerous to navigation.

Twatutia.—Ten miles up the river is Twatutia, a city of much commercial importance. Here are located the honges of the foreign merchants, who are chiefly employed as purchasers and exporters of tea.

Formosa teas.—The Formosa oolong teas are much superior in quality to the oolongs grown on the mainland around Amoy, and it is a favorite black tea in the American market. Fully 95 per cent. of the Formosa teas find a market in the United States. Six foreign firms are engaged in this trade, only one of these being American. It is a matter of regret that this profitable trade should be so largely in the hands of English merchants while the market is in the United States. American capital, backed by intelligent knowledge of the trade, and in the hands of men of business, experience, and ability, such as our country have in abundance, should be able to find here a profitable field for investment, and ultimately place this trade in American hands, where it properly belongs. Such an enterprise is not, if intelligently managed, an experiment, for the demand and market for these teas already exists in the United States, thereby placing such a business upon a much better footing at the very outset than would exist if a demand had to be first created and a market found. To this extent at least American capital under American management would not be embarked in a business whose outcome might otherwise be problematical. A syndicate of New York dealers in these teas, who have some experience in the trade here and an extended knowledge of the American trade therein, might here find encouraging field for their enterprise, which would largely increase their profits and profitably employ very considerable capital. At Twatutia the tea is fired and boxed, then sent down the river in junks and lighters to Tamsui, and there put on steamers and sent to Amoy, where it is finally inspected and made ready for export to America.

Lead lining.—The leaden lining for the tea boxes is the product of native labor. It is made by melting the pig lead and pouring it thinly over a flat surface and then beating it by hand to the requisite thinness.

Banka.—Above Twatutia, and in sight of it on a bend of the river, is Banka, a town or city of considerable size and importance. Between these two unwall'd cities, on a nearly level plain, stands the political capital of the island, Taipakfoo. Six years ago, where the capital city now is, the foreigner went gunning for snipe. Now a city surrounded by solid stone walls, three miles in circumference, with strongly secured arched gateways, confronts the beholder. These walls are battlemented and well built, and inclose a space rectangular

in shape. Wide, level streets, stone-paved, with brick gutters, intersect each other at right angles within the walls. Building is progressing rapidly in the new city. The fronts of these buildings are uniformly built on the line of the streets and brick arches across the sidewalks carry their verandahs out to a line with the curbstone. This method of building brings all the walks under cover and protects the pedestrian from the fierce rays of a tropical sun as well as from the frequent rains that prevail during the warm season.

Telegraphs.—I informed you in a former report of the cable and land lines of telegraph, as well as the railroads that were under contract or consideration in the island. I now have to report that the cable is not to connect the island with the main-land at Amoy, as then understood, but is to be laid from Keelung, across the channel to Foochow, the vice-regal capital. The exact date of its accomplishment I was unable to learn, but the work of laying it will undoubtedly be commenced and completed in the near future. The land line has been completed from the capital to Tamsui. This has been a great convenience to the foreign merchants at Twatutia. The service seems to be efficient, and to add to its efficiency a fine brick building for the use of the telegraph lines is rapidly approaching completion. This building is well and conveniently located. The line is to be extended northward to Keelung and south to Taiwanfoo. From the southern end a cable will connect Formosa with the adjoining Pescadores Islands, which are important in a military and naval point of view as having a good harbor, something that does not exist on the coasts of southern Formosa.

Railroads.—The material for building one hundred miles of railroad, with a limited amount of rolling stock for the same, has already been contracted for with foreign firms by the governor-general. Of this, the section of twenty miles from the capital to Keelung has been let to a German firm, while an English firm has got the contract for furnishing all the material for the eighty-mile section to be built southward from Taipakfoo. Each of these firms is to recommend a competent engineer to superintend the work on the respective sections, his services to be paid for by the governor-general, while the latter furnishes the cross-ties and labor to construct the road-bed and lay down the track. The gauge of the road is to be three feet six inches. The soldiers, of whom the governor-general informed me there were twenty thousand on the island, are to be utilized as laborers in building the railroad. I hear that these important steps have been duly authorized by the Imperial Government, but the necessary funds to pay for these improvements are to be furnished by the governor-general out of the revenues and resources of the island.

Electric lights.—The governor-general has decided to light the provincial capital with electricity, and has already given the contract therefor to a well-known American house, long engaged in the China trade. This American firm has likewise contracted to build two fast steamers, with triple expansion engines, for his excellency, and also a steam saw-mill, to be used in making lumber and timber for his many improvements. Taipakfoo will be the first native city to be lighted by electricity, and it is gratifying to know that an American house has the contract for furnishing the necessary plant and introducing this modern improvement into China.

Resumé.—It is impossible to overestimate the energy and intelligence of that moving spirit that has directed these wonderful strides

towards modern ideas and improvements which have taken place in Formosa in the past five years, or the influence and effect the steps so taken may have upon the future history and destiny of China, and especially so in the event of the final completion and successful management of these improvements. Only those who know the strong conservatism of the Chinese and their repugnance to everything that runs counter to that conservatism and the ancient régime, can fully understand the importance of this movement. It is not a step; it is a mighty leap in advance, and it required a Chinaman of no common ability, but of great liberality of sentiment, strength of character, and strength of will, to understand the value of these improvements to his countrymen, and who could and would successfully combat the obstacles with which the conservatism, the prejudices, and the jealousy of his countrymen would seek to embarrass and obstruct his way. That Sin Ming Chuan, the governor-general, is the right person to do this, the history and results of his administration of affairs in Formosa for five years past seems conclusively to prove. Much of all that he has set about to do yet remains for future completion.

UNITED STATES CONSULATE,
Amoy, Formosa, June 10, 1887.

WM. S. CROWELL,
Consul.

OPIUM INDUSTRY OF PERSIA.

REPORT OF CONSUL-GENERAL PRATT.

From a careful study of the subject, as well as from personal observation, I am forced to the conclusion that we possess in California and in our Southern States an extensive region adapted, both climatically and by nature of its soil, to the successful cultivation of the opium-yielding poppy.

Of all products, opium is the one which in Persia insures the largest and most direct cash return to the producer.

That the area of cultivation of the plant from which it is derived is greatly increasing follows as a natural consequence. As an article also of foreign trade, opium occupies here the first and foremost place.

The great markets to which it is exported are Hong-Kong and London; the one retaining it in greater part for home consumption, the other redistributing it in prepared or extract form to the world.

Last year 4,253 chests were exported from Burshire, and 740 chests from Bender Abbas, making 4,993 chests in all, which represented a money value of 1,248,250 toman, or, say, \$1,872,375. This, it will be observed, does not include what was consumed in Persia itself or shipped overland, of which no estimates are as yet available.

The commercial and therapeutic worth of the different varieties of opium is gauged, as is well known, by the relative quantity of morphia they contain in the crude state. Careful and repeated chemical analysis has demonstrated the fact that an average larger amount of morphia exists in the opium of Persia than is to be found in that of Turkey, of Asia Minor, or of any other portion of the East; the latter containing rarely over 9½ and the first often as much as 11½ and 12 per cent. of this alkaloid. It is therefore my opinion, all things being equal, that the Persian method will be our safest guide in experimenting with poppy culture in America.

CULTIVATION OF THE OPIUM-YIELDING POPPY IN PERSIA.

The *Papaver somniferum*, or white poppy, of which opium is the inspissated juice, is grown principally in and about Ispahan, Yezd, and Shiraz, the first-named taking the lead both as regards quantity and quality of production.

The preparation of the land begins about the 5th of September, and consists in plowing, harrowing, fertilizing abundantly with ashes and detritus, and laying off into squares to facilitate irrigation. After sowing, the fields are irrigated three times, at intervals of fifteen days. From thence on, irrigation is suspended until the middle of winter, when it is resorted to once only.

In the spring irrigation takes place on the 20th of March, after which the land is repeatedly harrowed and hoed in order to extirpate all parasitic weeds. If the plants are too close they should be thinned out, and from this time on watered every ten days and constantly harrowed until flowering begins, when all work must cease. When the heads have formed and have fully ripened a last flooding is given. Then six slight incisions are made at about the junction of the stem with the head. This should be done at noon. The juice that exudes is collected the next morning and the morning following at daybreak. When these first incisions have ceased discharging others are made lower down, and the operation may be thus thrice repeated; the opium obtained, however, being each time proportionately inferior in quality. Next the plants themselves are cut down and the heads sold, the natives using the seed on bread as a substitute for butter. The end of May is the season for harvesting.

E. SPENCER PRATT,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Teheran, July 15, 1887.

CULTIVATION OF THE DATE PALM.

REPORT OF MINISTER PRATT.

As a first result of my endeavors to obtain practical information on the subject of the date palm (*Phœnix dactylifera*), with a view to its introduction into the United States and cultivation along our South Atlantic and Gulf coast and in Lower California. I have succeeded in gathering from Persian sources the following:

The date palm is found in countries situated within the zone of 16 and 30 degrees north and south latitude. Except, however, in rare instances it will bear no fruit in localities removed 120 or 135 miles from the sea.

There are two methods employed for propagating the date tree: one by setting the date stone, the other by transplanting the seedling (self-sown).

When it is desired to raise a plant from the stone of the date one perfectly ripe and faultless is selected and both ends are either filed, or scraped off with a knife, until the inner kernel is laid bare. It is then planted in a mixture of gravel, sand, and camel manure.

From twelve to forty days usually elapse before it makes its appearance above ground. It will then put forth long, narrow, thin, and tender leaves, somewhat the shape of a saddler's needle. From the fourth to the seventh year it produces nothing except long, rough, reed-like leaves. It is, however, possible that during this period the tree may, from its leaves, which resemble the shoots of the oleander, bring forth other leaves; but owners of palm gardens pluck off these in order to give the tree a graceful appearance. Under no circumstances, however, do they touch the leaves that shoot out from the crown of the tree. If its head is severed from its body the whole tree withers and dies. Each individual plant is either male or female.

When the tree has attained its full stature a flowering branch is cut from the male palm and applied to the half-open flower-bowl of the female, thus giving it the fecundating principle without which it cannot mature its fruit germs.

In no instance has it been recorded by botanists that one of these trees possessed in itself the different natures of male and female, and for this reason was it that the Arab savants classed the palm as the first of the vegetable kingdom and the last of the animal.

The height of the date palm varies from three to twelve meters. The tree itself will indicate the time of fruit bearing.

When it has arrived at maturity it will cease its upward growth and throw out from its head a large mass of long, broad, green leaves, which protect the neck from the glare and heat of the sun. The young seedlings must be removed from the foot of the parent tree in the month of January, and planted and reared according to the foregoing instructions.

In Persia the palm is grown near the ports on the Persian Gulf; also, in the hot districts of Kerman, Khūrzistan, and in the oasis of Jandak.

E. SPENCER PRATT.

LEGATION OF THE UNITED STATES,
Teheran, July 3, 1887.

FORESTRY IN CAPE COLONY.

REPORT OF CONSULSILVER.

The total area of Cape Colony is computed at 214,000 square miles, of which something over 350 square miles is covered with large forest trees. These wooded tracts exist in the temperate regions of the southern mountain chains near the sea, running almost parallel to the coast.

Until within a recent period the working and management of these forests was of a very thriftless and unsystematic character. Fellings were confined to limited areas or sections; wood-cutters were allowed to pick and choose their trees indiscriminately throughout the forests, and to pay only for the wood actually removed. The consequence of such a method was that only the most choice trees were felled, and their rejected portions left to cumber the ground. It has been estimated that by working on this system nearly thirty cubic feet of wood were wasted for every one utilized and paid for. Natural reproduction was thus severely handicapped; many forests

disappeared altogether, and those which now remain and are at all accessible have been impoverished to the last degree.

In 1880 the question of forest management was brought before the colonial parliament. It was pointed out that the persons in charge had received no special training for the work, which had in consequence suffered severely, and a salary for a trained forest officer was voted by Parliament. The services of Count de Vasselot, of the French forest department at Nancy, were secured, and he proceeded early in 1881 to organize the present forest department. Count de Vasselot adopted the method of dividing the forests into blocks and subdividing them again into sections. Fellings now proceed regularly in biennial sections, so that the regrowth in the first section cut may develop into mature trees by the time the working of the last section is finished; and there will thus be no occasion at any time to close the entire forest from fellings. The period for the "revolution" of fellings has been fixed at forty years. The tariffs for standing trees at present in force vary from 2 cents to 6 cents per cubic foot of sound wood, with one exception, stinkwood (*Oreodaphne bulbata*), a very valuable and hard wood, for which the rate is fixed at 24 cents per foot, as this species was threatened with extermination. Poles from 6 inches to 10 inches in diameter are sold at 2 cents per running foot; spars from 4 inches to 6 inches in diameter, 12 cents per 100 running feet.

To illustrate the method now used in the colony for the management and conservation of forests, a description of that used in the Knysna, the most extensive and valuable in the colony, will only be necessary. The total forest area of the Knysna is approximately 100,000 acres, of which about three-quarters have been considerably exhausted by reckless and indiscriminate felling. The forest staff at this forest consists of one conservator, three officers of the higher grade, and six forest rangers, or guards. The work of each officer of the higher grade extends over an area varying, according to circumstances, from 10,000 to 30,000 acres. The timber, or high forest, is surveyed by him. He determines the boundaries of series or blocks, and draws up working plans for the formation of sections. All working schemes are submitted to the superintendent of woods and forests, and after their approval the lines are opened, sections surveyed, and trees available for felling counted and stamped with an official mark. The rangers, or guards, are employed in riding about and reporting infractions of the forestry laws. Rewards for good cases are given from time to time for the successful prosecution of forest cases.

In addition to the officers already enumerated, thirteen foresters are employed and distributed over the different forests. Their duties consist in planting and transplanting trees. They are paid at the rate of \$20 per month and are provided with quarters and ten acres of irrigable garden land. They are paid besides this a bonus of \$2.50 per 1,000 for planting passed nursery plants, \$2.50 per 1,000 for one-foot trees passed as established in the forest, or for nursery work and transplanting, \$5 per 1,000 passed trees. A bonus can not exceed \$200 per year without special sanction. Each forester is expected to raise at least 40,000 young trees annually. This system has so far proved a success. There were six foresters in the King William's Town forests in 1885, and during that year had 138,080 plants in the nursery, and transplanted into the forest 63,885 young trees.

As an additional and valuable aid in the efforts to preserve and in-

crease the forest area, the colonial government has laid out several large tracts of land into nurseries and plantations. These nurseries, though of recent growth, have proved their utility in the effort at reforesting the country. Over a million plants are now flourishing at Government nurseries. Convict labor is utilized in working them, and the expense of their maintenance is thereby reduced to a minimum.

At the plantation Tokai, on the Table Mountain range, plants have been raised from 150 species of extra-tropical trees. It is proposed to reforest the whole of the Table Mountain slopes, and in two seasons over 1,000 acres have been planted. Plants are distributed throughout the colony from these nurseries at a nominal rate. A stimulus has been given to tree cultivation by the passing of an act whereby public bodies are aided by Government to the extent of one-half of the expenditure on such work. These Government measures have tended to stimulate general interest among colonists and public bodies in the subject of arboriculture. In 1886 the first "Arbor Day," after the pattern in vogue in many of the American States, was proclaimed as a public holiday, and its success was such that it is likely to become a permanent institution.

With such machinery at work, and with a growing appreciation of the utility of tree-planting and forest conservation, it is confidently hoped that the efforts of Government in this direction will, in future years, render Cape Colony independent of foreign markets for her timber supply; while its effects on the immense tracts of fertile land, now useless for agricultural purposes by reason of inadequate or capricious rain-fall, can scarcely be estimated.

JAS. W. SILER,
Consul.

UNITED STATES CONSULATE,
Cape Town, September 14, 1887.

WHEAT PRODUCTION IN ECUADOR.

REPORT OF CONSUL-GENERAL MCGARR.

The area of the country, not including that in dispute between Peru and Ecuador, is stated at 150,000 square miles, the natural divisions of which are the coast, inter-Andean, and Napo regions, the last mentioned sparsely inhabited and only partially explored. The coast region embraces about one-fourth of the total territory, the inter-Andean one-half, and the eastern or Napo region about one-fourth. Three-fourths of the entire territory, with the exception of the very high altitudes and precipitous mountain slopes, are probably capable of producing wheat. The area actually devoted to wheat is from 35,000 to 40,000 acres.

Small wheat farms are the rule; or, to speak more accurately, the land is generally owned in large bodies and the proprietors rent small subdivisions to their Indian tenants, who are directed what crops to plant and how much land to each kind, so that the land planted in wheat is usually in small areas of from 1 to 10 acres.

The system of farming is quite primitive. No machinery is employed either in the sowing, cultivation, gathering, or thrashing of

the grain. The only implement used in the cultivation of the ground is the plow, made of wood, sometimes with an iron point, and always drawn by oxen. The seed is sown by hand and the wheat stalks are cut with knives. The grain is separated from the straw by the treading of horses and mules, the cut wheat being placed and distributed in a circular space on the ground, and two or three horses or mules, tied to a post in the center of the space, driven rapidly around, thus treading out the grain. It is winnowed by being dropped through small sieves held in the hand, the wind separating the dust and chaff from the grain.

Rotation of crops, as a rule, is not observed, but a few of the more intelligent proprietors have of late adopted the system.

The average yield an acre is from 5 to 8 bushels, and the seed planted is usually one-tenth of the yield, but in the very dry lands it is sometimes one-fourth. It is a reasonably reliable crop, except in those districts where the rainfall is slight and variable. The crop of 1886 was greater than that of 1885 by ten per cent., and in some districts of superior quality.

It is impossible to state, with any near approximation, the cost of production, as the persons actually engaged in raising wheat are too ignorant and indifferent to make any estimate, but I suppose, in the comparatively few instances where the farmer employs laborers and pays them fixed wages, the cost, including the marketing, is four-fifths of the value of the product. The price is not constant, but it is reasonably steady. The inferior qualities this year have been sold at \$1.60, and the superior at from \$2.20 to \$2.40—equal, respectively, to \$1.40, \$1.65, and \$1.80 in American gold—the 100 pounds. There are no regular quotations of the market, and I cannot give the quotations for a series of years.

There are no exports of wheat or flour, but flour is imported for all the coast region. Heretofore it has been brought almost exclusively from Chili, but within the last year shipments have been made from California, and there is now a good prospect of increasing the importation from that State. During the quarantine restrictions, established at this port last winter, excluding vessels from Chili, all the flour came from California. It is of a better quality than the Chili flour, and can be sold here at the same price. No export trade in wheat or flour has ever existed and none of the crop is exported.

No facilities exist for transporting grain, and it is transported only from the fields to the towns in the interior where there are mills. It is carried, like all other commodities in the country, on the backs of Indians and mules. If there were roads from the interior to the coast, doubtless the greater part of the flour supply of the coast would come from the inter-Andean region.

Wheat is not the staple food of the people. It is used in the form of flour by not more than one-tenth of the population. It enters into the food of probably another tenth without being ground. The staple food of eight or nine tenths of the people is barley, maize, and potatoes.

Generally speaking, cattle-raising is more profitable than wheat.

There is some slight complaint over the present low price of wheat, but the price and production vary little from year to year. The price is generally low, because labor is very cheap, and the demand for wheat and flour limited, and not capable of being materially increased under present conditions. It is not unlikely that the area

now under wheat may be slightly decreased, owing to low prices. The coming crop will probably be an average one.

There are six or seven water-power flour-mills, with modern machinery, in the country. In the provinces of Pichincha, Imtabura, and Carchi, of the fifteen of the Republic, the total quantity of flour from all the mills for 1886 was 7,160,000 kilograms, equal to about 60,000 bushels, which I think represents more than one-third of the whole product of the country.

OWEN MCGARR,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Guayaquil, July 25 1887.

GOLD MINING IN BRITISH GUIANA.

REPORT OF CONSUL BUNKER.

Gold mining in British Guiana has been carried on in a small way for about twelve years, no one caring to assume the risk of searching for the rich auriferous deposits that undoubtedly exist here, on account partly of the opposition of sugar planters to this or any other enterprise having a tendency to deprive their estates of laborers and the refusal on the part of the Government to afford protection to miners in districts within the disputed territory where gold is found. Latterly a new impetus has been given to mining industries by the action of the British Government in declaring its right to the territory hitherto claimed by this colony and by Venezuela. The decline of sugar production has also resulted in withdrawing the opposition of the planters.

The mining done here is at present confined to placers, some of which are paying a handsome profit. No veins of auriferous quartz have as yet been opened up, though there is little doubt of the existence of such lodes. Specimens of the richest quartz are often found in placer washings. Two thousand five hundred laborers have been registered to work in the gold-fields up to date, and probably more than 2,000 of them are still at work. The employing of these men has, I estimate, increased the business of Georgetown over \$60,000 per month. A suspension of this industry from any cause would be little short of disastrous to the trade.

The placers on the Groete Creek are reached by boat from Demerara in three days or by steamer in one day. Those on the Cuyuni River are reached in thirteen days, traveling by steamer to Bartica, thence by boat; and the Massaruni River by similar means of conveyance is reached in eleven days, the Purmic River by the same route in fourteen days. In all these rivers, except Groete Creek, there are dangerous falls or rapids, requiring skilled men in the bow and stern of each boat to enable them to pass, and even under these circumstances boats are not unfrequently capsized, and both freight and men lost. The Upper Demerara River is free from these dangers, but this section is not popular mining ground among prospectors, though placer washings and auriferous quartz have been found there.

The principal mining regions lie to the west of the Essequibo River, along the line of the rivers first mentioned, and along the mountains, that are evidently a continuation of the ranges on which

the celebrated "El Callao," Callao Bis, and other mines of the Caratal district are situated. The country to the east of the Demerara River, extending for a distance of 100 miles through to the Corentyn River (eastern boundary of this colony), is as yet a "terra incognita" to gold seekers, though it is considered probable that the British Guiana Mining Company, called the "Big Company," will at an early date send prospecting parties through it.

The best results obtained so far have been by the efforts of American miners.

Mosquitoes do not add to the discomfort of miners, there being none, and the nights are sufficiently cold to make a heavy woolen blanket for covering necessary.

The attention of our merchants and manufacturers is called particularly to the opening up of this new industry, as it is to them that mining in its infancy presents an opening for profitable trade. I think no one will dispute the fact that the United States produces the best tools and machinery for securing the precious metals of any in the world; therefore our manufacturers ought not to wait for a demand, but put themselves into a position to supply the tools and outfits which the incidental development and prospecting of a new mining country requires. In addition to quartz-mills, not yet needed. I believe the following classes of goods will find a good market: Axes, shovels, cutlasses, pans, lanterns, kerosene stores, explosives, tools, hammers, drills, and all kinds of materials used in mining operations; also drab broad-brimmed felt hats. When miners turn their attention to prospecting for quartz it will probably be necessary for them to do that work with diamond drills, on account of the great mass of debris covering the sides of the mountains.

The following comparative statement, showing the production, may be of interest to American readers:

Years.	Quantity.	Value.
	<i>Oz. Dwt. Gr.</i>	
1884.....	250 00 0	\$4,804.30
1885.....	930 15 0	15,596.00
1886.....	6,518 1 1	112,042.48
1887, to August 7.....	6,212 8 15	112,000.92

UNITED STATES CONSULATE,
Demerara, August 23, 1887.

D. T. BUNKER,
Consul.

GRAIN PRODUCTION AND LAND TENURE OF SIVAS, ASIA MINOR.

REPORT OF CONSUL JEWETT.

The figures given below on the grain production of the province of Sivas, while they are not claimed to be strictly accurate, are as reliable as can be obtained. The so-called official figures given by the provincial Government are of little value, being affected by a lack of system in gathering statistics. Another difficulty in preparing estimates is the difference in measurements used. There are three different standards, the "Sivas kileh," the "official kileh," and the "Stamboul kileh," and these are used indiscriminately. The figures

here given have been prepared with as much care as the circumstances would permit, and are based on estimates made by parties qualified to judge, and on information obtained from private sources. They may be considered as approximately correct.

The past season has been an unfavorable one, but the province has not suffered as much from poor crops as have other parts of Asia Minor. There have been a total failure of crops and consequent distress in isolated districts, but as a whole the province has escaped the disastrous results of failure of harvests which have affected the southern sections of Asia Minor, and which were feared here at the commencement of the season.

The province is divided into four districts (sandjaks), and each district into subdistricts, called kazas. The estimated yield of wheat and barley, the principal cereals, for the current year is as follows, kilehs being reduced to bushels:

District.	Wheat.	Barley.
	<i>Bushels.</i>	<i>Bushels.</i>
First	1,425,000	376,000
Second	722,000	202,000
Third	615,000	198,000
Fourth	186,000	123,000
Total	2,947,000	998,000

This is a falling off of about 35 per cent. from a normal crop. According to official statistics there were on hand on August last, in Government stores, about 775,000 kilehs of old wheat. There is about the same quantity in the hands of speculators. The population of the province is about one million. Should next year's harvest prove a poor one, a state of affairs approaching a famine must result. Besides wheat and barley, the province produces small quantities of corn, rice, lentils, chick-peas, vetch, and beans. A small quantity of opium is usually grown in the Niksar district, but this year the crop is a total failure.

While the province as a whole has produced sufficient grain to tide over until the next harvest, if evenly distributed, individual districts suffer greatly from failure of crops. In the Kasabad, Koumanad, and Zilleh kazas the crops were entirely lost. The people there have been reduced to abject want and obliged to sell off their cattle at ruinous prices, a cow bringing only 1 mejidea (88 cents). They have called on the Government for food as well as for grain for next year's seed and for release from taxes. The lack of roads and means of transportation make a district where the harvests have been a failure almost helpless, although neighboring districts may be well supplied with grain. The kazas of Marsavan and Gumush-hadji-keoi have also suffered greatly and been obliged to appeal for help. In the great valley of Sou-shehir the crops were entirely burned. In the Hamidiye district there is less than half the usual crop.

PRICES AND VALUES.

Owing to the alarm over short crops and the prevailing scarcity in other districts, the price of wheat has been abnormally high the past season. Speculators forced the price from 30 piasters to 120 piasters per kileh. It is now quoted at about 80 piasters. This, how-

ever, does not by any means represent the value realized by the farmers. The Turkish small farmer is always in debt. It seems to be his normal condition and he accepts it as a matter of course, without any thought of its being a burdensome one. As a result he is generally obliged to sell his crop before it is grown and is constantly in the hands of the usurers. He sells his wheat, therefore, under most disadvantageous conditions and realizes not more than half, or even less, of its real value. The normal price of wheat may be estimated at about 60 cents per bushel. The farmer, as a matter of fact, gets about 20 cents a bushel. It is impossible to get any reliable figures as to the yield per acre. I presume it will average 8 to 12 bushels in a fair year.

METHODS OF CULTIVATION.

The Turkish farmer seems to have no regular time for sowing. Winter wheat is sowed in all months from August to December. In the middle of September I have seen wheat well started so that it is as green as in spring. Late into December, too, plowing and sowing are done, as there are usually a few weeks of mild weather at that time. The seasons, it should be observed, are as a rule much like those of New England. Rain falls plentifully in September with frequent showers from then until snow comes. From April until the latter part of August there is usually sufficient rain, but this year there was practically none.

Plowing is done with the same sort of implement used a thousand years ago. The plow consists of a slight framework, carrying a pointed stick, sometimes shod with iron, to turn the earth with. Harrowing is done by dragging a beam of wood transversely across the furrows. Considerable manure is used on the land and the fields are allowed to lie fallow every second year.

Grain is cut with scythes and sickles. The handle and blade in both are straight and set at right angles to each other. The crooked "snath" is unknown.

After the grain is cut it is carried to the common thrashing-floor, a smooth piece of ground used by all the people of a village in common. It is here spread out on the ground and thrashed by dragging over it a broad piece of wood, or planks joined together, having pieces of flint fastened on the under surface. The flints cut the straw and shake out the grain. The work is continued until the straw is cut very fine, when it is winnowed by throwing it into the air with a wooden shovel against the wind, and afterwards by throwing it against a sieve-like frame of cords set in the ground.

The straw is used as fodder for horses and cattle. No hay is grown; there is little grass, and this dry, chopped straw, mixed with barley, is the main subsistence of horses all the year round and of cattle during the winter.

TITHES.

One-tenth of all the grain produced is taken by the Government. There are two systems of collecting tithes. The older system was the collection in kind by the Government direct. This system gave rise to great abuses and required an army of petty officials who considered the farmers as their legitimate prey. There was an enormous expense involved, and between the expense and the speculation of officials the Government received but a small part of its dues,

A few years ago the system of farming out the tithes for cash was adopted, the tithes of several kazas being sold to the highest bidder. This gave better results to the public revenue, but imposed equal hardships on the owners of grain under the impositions and exactions of the tithe farmers and their subordinates.

This year a modification of the two systems has been adopted. The tithes are to be farmed out, not for cash but "in kind." The conditions imposed, however, are such, for instance, requiring the lessees to transport the wheat they pay for their contracts to a central Government warehouse, that few of the contracts will be taken. This is probably what the Government officials wished for, as it will result in leaving the collection of the tithes in their hands and afford them the opportunities for speculation and waste of public revenues which are so much to the taste of many of them.

SYSTEM OF LAND TENURE.

In considering the agricultural resources of the country the system of land tenure is an important factor. The system is an involved one and full of intricate details. Its whole tendency is to keep land in the hands of Moslem subjects. As a rule the Moslems have neither the skill nor energy for developing the resources of land to advantage, and when this is attempted by Christians or foreigners it is so hampered by technicalities regarding title, involves such endless litigation, that in most cases it either has to be abandoned or worked through Moslem agents.

Land tenure in Turkey is of four kinds, viz:

(1) *Arazie miriye*, i. e., waste lands, natural pastures, wood lands belonging to the state. These are leased for a period of years. These lands are also sold on condition of being cultivated a certain number of years. Failing in this they revert to the state. This reversion, however, is more in theory than in practice, the law being seldom enforced.

(2) *Moolk*, or freehold; land to which the Government has surrendered all claim. It includes (a) all streets, roads, paths (not highways), which are supposed to be ceded to the Government for the convenience of its subjects; (b) transferable estate which may be bought or sold by permit from the landed estates department; (c) state lands called *harrajie*, given to the subjects and their heirs by the Government for distinguished public services.

(3) *Vacoofs*, i. e., land given by the state or by individuals for the endowment of mosques, colleges, monasteries, etc., and state lands, the tithe revenue of which is conferred as a gift on distinguished individuals. The latter sort is usually coupled with some condition, as that the person receiving it shall instruct a certain number of Moslem youth in the Koran, or provide a good meal for any traveler who may ask it.

(4) *Metroki*, i. e., public highways and lands bestowed by the Government on towns and communities. There is another sort of tenure called "*mevat*," which is determined in a manner truly oriental. It relates to small pieces of state lands situate between the boundaries of villages. The theory of this species of tenure is that the pasture or common land of a village should not extend more than a certain distance, so that quarrels with the neighboring villages may be avoided. The way this limit is ascertained is this: one of the villagers, standing on the steps or minaret of the mosque, calls out as

loud as he can. The point at which his voice can not be heard is the limit of the village property and common pasturage. At the neighboring village the same performance is gone through with, and the land between the two points is "mevat" and belongs to the state.

As will be seen from the foregoing, the central idea of the system of land tenure is that all Turkish territory belongs to the Government by right of conquest, to be disposed of by gift or sale or by rental for a longer or shorter period.

The majority of the small farmers hold their lands under the protection of large land owners, who protect them in the local courts and receive in return a sort of feudal service. These beys, generally the descendants of ancient families, are a powerful class and practically own the peasantry under their influence. The latter must at any time abandon their own farms to cultivate that of their lord or to gather his harvests. They in turn are each assisted by their neighbors and assist them. Owing to this quasi-communal system the question of wages does not largely enter into the matter of agricultural profits.

H. M. JEWETT,
Consul.

UNITED STATES CONSULATE,
Sivas, September 28, 1887.

CHANGES IN THE DOMINICAN TARIFF.

REPORT OF CONSUL SIMPSON.

On the 4th of July last the Congress of this Republic passed a decree making important changes in its customs tariff. The following is a translation of the substance of the same, or at least so much thereof as is of general interest to parties abroad:

Article 1 declares absolutely free of all duties until the 31st December, 1890, and afterward until the passage of a decree annulling the same, the following articles:

All classes of machinery for the development of agricultural and industrial establishments, together with accessory and spare pieces for same; tallow and oil exclusively applicable for use on machinery; phosphate and ammoniacal guano; zinc, galvanized iron, hand and steam water-pumps, windmills, hogshead and box shooks, and bags for sugar; rails and railroad spikes, railroad wagons, axles and boxes for wagons and carts; barbed wire fencing, coal, plows, spades, axes, crowbars, hand-rakes, short machetes, and, in general, any instrument exclusively used in the cultivation of the soil or for use in the mountains.

It is not intended to include in the foregoing as accessory parts of machinery such articles as may be applied to other uses, such as screws, bolts, nails, bars or sheets of iron or other metal.

Article 2 declares that the articles following shall be admitted subject only to a duty of 10 per cent. on their cost, by whomsoever imported, viz:

Boards, planks, and scantling, of pine or pitch pine, or other woods for construction; shingles, roofing tiles, roofing slate, tarred roofing paper, or any other kind of roofing; bricks, flagstones, iron, steel,

and copper, in sheets or bars; nails and screws, of iron or copper; galvanized or not; Roman (Portland) cement, manila rope, tubes of iron, copper, or lead; lighters (large or small), iron tanks, hand trucks, picks and shovels of all kinds; bull carts and wagons, and also wheels for making same.

Article 3 gives the executive authority to admit, free of duty, any or all of the articles mentioned in Article 2, and others that he may see fit, once only, to assist in the formation of new agricultural establishments, on being previously solicited to do so. But the exoneration only extends to the quantity that the minister of fomento deems just and in accordance with the proportion of the establishment to be erected, a plan of which must be submitted. If all the articles exonerated are not imported before the expiration of two years from the commencement of the establishment, they will be admitted only after the payment of the 10 per cent. mentioned in Article 2.

Article 4 refers to the disposition of the amount received from the 10 per cent.

Article 5 declares that Panama hats, revolvers, and cartridges shall also pay 10 per cent.; the former on tariff values and the latter on invoice value. In this class are included pianos, organs, and other musical instruments; iron safes, and all furniture and effects which heretofore have been imported free of duty (such as sewing-machines, etc.), provided they are not included in Article 1.

Article 6 relates to entry of goods.

Article 7 provides that notwithstanding the goods imported pay no duty, or only 10 per cent., yet manifests must be made as heretofore, and minute description given of the contents of each package. It also provides that importers who declare goods as free or subject only to 10 per cent. duty, which are liable to a higher rate, will incur the penalties prescribed by law.

Articles 8, 9, 10, 11, and 12 provide for carrying into effect and disposition of receipts.

Article 12 repeals all former laws in regard to free importation for rural estates.

THOS. SIMPSON,
Consul.

UNITED STATES CONSULATE,
Puerto Plata, San Domingo, August 12, 1887.

NOTES.

Caterpillar plague in Cadiz.—Consul Ingraham writes:

For some three years past an insect of the caterpillar species, called *Lepidoptera*, of the genus *Liparis*, species probably *salicis*, has made great havoc among the trees, principally the oaks and the larch, in certain towns in the northeast part of the province of Cadiz, extending to Ronda, in the province of Malaga.

Fruitless attempts have been made to destroy the insect with sulphur and other means, but this year the ravages increase in Arcos, Bornos, Villamartin, Grazalesma, Ubrique, and other towns of the Sierra. Villaluenga, where the chief raising is swine, is nearly ruined on account of the destruction of the oak, and the acorns on which they principally subsist.

The civil governor has written and forwarded to the secretary of the interior at Madrid samples of the insect with the trunk of a tree attacked, asking for government investigation and aid.

Grasshopper plague in Salvador.—Consul L. J. Du Pré writes, under date August 12:

Through three months grasshoppers ("chapulins") have ravaged narrow districts of Salvador. Their raids are made mainly upon corn (maize) fields and sugar fincas. Rich land owners have induced governmental interposition and the poor "natives" are literally "conscripted" and forced, even at the bayonet's point, to carve out ditches about the broad acres of rich land-owners. Each of the involuntary toilers is paid a real (12½ cents) per diem, a sum supplying tortillas and frijoles enough to sustain life. Ditches 18 inches wide and 2 feet deep are dug about the great estates of the opulent whites, and in these excavations the little "chapulins," each now about one-half an inch in length, perish. These ditches are half filled by daily rain-storms, and when the water evaporates or is absorbed the stench is widespread and insufferable. In the vicinity of San Salvador little damage has been done, but the price of corn has been quadrupled. The indigo crop escaped destruction because it matured nearly two months earlier than in preceding years. It is now ready for market, and the volume of production is greater than ever before.

Tradition and oldest farmers tell that these pests formerly appeared at regular intervals of twenty-two years. They came at the proper period, after the lapse of twenty-two years, nine years ago, and here they remain. As soon as hatched they begin to prey upon vegetation about them, moving in vast volumes, all in one direction. They remain upon the ground six months, unable to fly, always marching day and night. They strip the leaves from cornstalks, now and then desolating a sugar-cane field.

After the lapse of six months these little chapulins become as clouds above Salvador. They drift with air-currents, and finally disappear. Others come, as innumerable as their predecessors, and circling about the brightest, greenest pasturage for a time, descend, deposit eggs in long, narrow holes in the ground, each egg containing from 150 to 300 germs. Doing no other detriment they rise and drift with the idle wind till they fall dead from among the clouds.

I have seen the very heavens, during three successive midsummer days, obscured in Texas by dense masses of these self-same silver-winged "chapulins," migrating from the tropics to the inhospitable regions of the northwest, where they become food for Navajo and other Indians, providing, as well, famine for buffaloes and antelopes; and I am curious to know whether these "chapulins" of Central America are the "grasshoppers" of the northwest.

Export of prunes from Trieste.—Consul Gilbert transmits the following:

Number of casks prunes (Bosnian and Servian) shipped from the consular district of Trieste (Trieste and Fiume), from July 11, 1886, to July 3, 1887, inclusive.

[This table is also of interest as showing the number of days necessary to make the passage from Trieste to New York. All so called direct steamers leaving this port for the United States call at intermediate ports of Italy, Sicily, and Spain.]

Date of sailing from Trieste.	Date of arrival at New York.	Days of passage.	Name of steamer.	Registered tonnage.	Casks shipped from—		Shipped by—			Total casks.
					Trieste.	Fiume.	Anchor line.	States line.	Phelps line.	
1886.	1886.									
July 11	Aug. 18	38	Sidonian	850	509	185	694			694
Aug. 23	Oct. 3	41	Olympia	1,416	442	1,120	1,562			1,562
Sept. 23	Dec. 13	75	Australia	1,455	25		25			25
Oct. 10	Dec. 5	54	Naples	1,473	150				150	150
Oct. 19	Dec. 2	43	India	1,592	540	190	730			730
Nov. 6	Dec. 22	46	Italia	1,452	1,365	300	1,565			1,565
1887.	1887.									
Nov. 18	Jan. 2	44	East Anglia	1,578	1,449	437	1,886			1,886
Nov. 30	Jan. 17	48	Leo	1,302	1,010				1,010	1,010
Dec. 7	Jan. 26	51	Saxmundham	1,376	650	971		1,621		1,621
Dec. 15	Jan. 26	42	Utopia	1,731	1,632	499	2,131			2,131
Dec. 17	Jan. 25	39	Powhatan	1,711	1,260	553			1,818	1,818
Dec. 31	Jan. 30	30	Yoxford	1,637	2,200	233		2,543		2,543
1887.	1887.									
Jan. 14	Feb. 17	34	Caledonia	1,396	1,655		1,655			1,655
Jan. 19	Feb. 21	33	Lisnacrieve	1,331	400	1,878		2,278		2,278
Jan. 20	Feb. 23	33	Mount Lebanon	1,555	1,050	1,145	2,195			2,195
Jan. 21	Feb. 25	35	Kingdom	1,414	908				908	908
Feb. 4	Mar. 10	34	India	1,593	1,462	281	1,743			1,743
Feb. 9	Mar. 14	33	R. F. Matthews	1,210	600	1,280		1,880		1,880
Feb. 20	Apr. 7	48	Italia	1,452	1,246	640	1,886			1,886
Mar. 5	Apr. 10	38	Crown of Arragon	1,486	1,175		1,175			1,175
Mar. 18	Apr. 21	36	Castledale	1,532	721		721			721
Apr. 4	May 6	33	Utopia	1,731	1,395		1,395			1,395
			Newcomen	1,337		971		971		971
May 20	June 21	31	Catania	1,420	368				368	368
June 21			Norwegian bark	453	772					772
June 23	Aug. 29	35	India	1,592	250		250			250
July 3	Aug. 4	31	Olympia	1,416	300	394	694			694
Total					23,494	11,123	30,307	9,293	4,354	34,626

About 3,000 casks of the crop of 1886 still remain unsold. The crop of the present season in Bosnia and Servia is stated to be a fair average one.

Decree relating to international exhibition of machines and appliances for drying fruit at Portici, Italy.—Vice-Consul-General Wood, under date of August 29, 1887, transmits the following:

[Translation.]

Whereas a royal decree dated June 19, 1887, by which there is established an international exhibition and competition of machinery and appliances for drying fruit;

Whereas, article 3 of the above-mentioned royal decree provides that by ministerial order the conditions of this exhibition and competition shall be specified;

I, on the proposal of the director-general of agriculture, do decree:

(1) The international exhibition and competition of machinery for drying fruit will be opened at Portici, at the Royal Superior School of Agriculture, on the 15th of September, 1888, and will close not later than the 15th of October, 1888.

(2) Inventors, manufacturers, or agents, Italian or foreign, may take part in the exhibition and competition.

(3) Agents (depositari) of fruit-drying machines, constructed in Italy or abroad, will be considered the representatives of the manufacturers, and they being recognized as the exhibitors, to them in case of awards will be consigned the prizes.

(4) A committee of direction will provide for the success of the exhibition and competition.

(5) The committee will be composed of a professor of agriculture and a professor of agricultural mechanics of the Royal Superior School of Agriculture at Portici, of a delegate from the council of direction of the said school, and of two other delegates chosen from the ministry of agriculture, industry, and commerce,

The committee will elect a president from their own number.

(6) The prizes offered for this competition are: One gold medal, with a purse of 500 lire (\$100); two silver medals, with a purse of 200 lire (\$40), accompanying each medal; and four medals of bronze.

The minister of agriculture, industry, and commerce will purchase two of the drying machines to which prizes may be awarded.

(7) Other than complete drying machines, and such as can be submitted to any trials, shall not be admitted to the exhibition and competition. Competitors presenting apparatus in a condition of simple drawings are also excluded.

(8) A special jury chosen by the ministry will award the prizes.

(9) Prizes can not be awarded to any machines not effectively tested by the committee of judges and found to be preferable by reason of their regular drying and economy of service. If the apparatus is not in the exhibition but is in use in other places, the jury, when recognizing the necessity, can delegate some of its members to visit the place designated by the exhibitor and there proceed to make the necessary trials.

(10) Drying machines will be subjected to all such trials as may be established by the jury. To facilitate trials the jury may appoint supplementary members in case of need.

(11) The transportation of machines to Portici, and as well as their return, will be at the expense of exhibitors, who, however, will be entitled to a reduction in carriage by rail or steamship lines, both for their machines and for themselves, their representatives, and their workmen.

(12) The expense of the trials will be borne by the ministry of agriculture.

(13) Requests for admission to the exhibition and competition must be presented to the committee of direction not later than July 31, 1888. Competitors must accompany requests with such technical information and descriptions, and if possible also drawings of the drying machines they intend to enter, indicating space occupied, weight, price, and quality of fuel, and also the amount of daily labor required. A separate request must be made for each machine to be entered, although several may belong to the same competitor.

(14) Machines will be admitted which have already won prizes at other competitions, but a new award can not be made to such machines unless they have been modified in an important manner, or if former awards were of an inferior degree to the prize they may win in this trial; when judged worthy of a prize equal to that already obtained, they can only receive a certificate of confirmation.

(15) On receipt of requests for admission the committee of direction will notify competitors of their acceptance, give them all necessary information, and forward blank forms for the regular shipment of machines, and to entitle them to the reduction allowed on freight and passenger fares.

(16) Each machine must be worked by its maker or by his duly authorized agent, who must give the jury any information required. Should the exhibitor or his agent fail to appear at the trial, his machine can not be tried, and will be considered outside of competition.

(17) The committee of direction will not assume any responsibility for damages to machines during transportation, or at the trials.

(18) The jury will establish regulations to be followed during the trials, and rules governing the award of prizes.

(19) Within a month from the close of the exhibition and competition, the jury must present to the ministry of agriculture a detailed report, with illustrations of the most notable machines which have obtained prizes.

(20) The competitive trials will close with the award of prizes. The chairman of the jury will announce the name of each exhibitor to whom awards have been made, and in brief terms state on what grounds such prizes have been given. The president of the commission will summarize the results of the trials, indicating the merits and defects of machines and the teachings which may be drawn from the competitions.

(21) The committee of direction are authorized to issue all such further regulations as they may deem necessary, and to which all competitors must conform.

Rome, June 19, 1887.

B. GRIMALDI,
Minister of Agriculture, Industry, and Commerce.

German law on butter substitutes.—Vice-Consul-General Versen sends the following translation of an act relative to the traffic in substitutes for butter, approved July 12, 1887:

SECTION 1. The business rooms and other selling and market places at which "margarine" is dealt in or placed on sale shall bear on prominent places the distinct indelible inscription, "Sale of margarine."

"Margarine," in the scope of this act, shall be those preparations similar to milk butter the fatty contents of which are not exclusively derived from milk.

SEC. 2. The admixture of butter with margarine or other table fats for the purpose of carrying on trade in those admixtures, as well as in dealing in or placing same on sale, shall be prohibited.

Under this provision shall not come the admixture of butter fat originating from the application of milk and cream in the preparation of margarine; provided, however, that no more than one hundred parts of milk in weight, or ten parts of cream in weight, in one hundred parts of weight of fats not derived from milk shall find application.

SEC. 3. The vessels and exterior coverings in which margarine is dealt in or placed on sale shall on prominent places bear a distinct and indelible inscription which contains the denomination of "margarine."

If margarine is dealt in or placed on sale in whole casks, kegs, or cases, such inscription shall additionally contain the name or the firm of the manufacturers.

In retail margarine must be delivered to the buyer in a covering which bears an inscription containing the denomination of "margarine," and the name or firm of the seller. If in trade margarine is sold or placed on sale in regularly formed pieces, the same must be cubic-shaped, having the above inscription impressed, if they are not provided with a covering bearing this inscription.

The federal council shall have the right for the carrying out of the provisions in clauses 1-3 to issue orders to be published in the bulletin of laws of the Empire.

SEC. 4. The provisions of this act shall find no application to such productions described in section 1, as are not intended for human consumption.

SEC. 5. Contraventions to the provisions of this act, as well as to the orders of the federal council to be issued in conformity with section 3, shall be punished with a fine within one hundred and fifty marks or with imprisonment. In case of repetition it shall be passed upon a fine within six hundred marks or imprisonment within three months.

This provision shall find no application if since the time in which the penalty for an anterior infringement shall have been suffered or abated three years shall have lapsed.

Besides the penalty, confiscation of articles sold or placed on sale contrary to these provisions can be passed upon, no matter whether or not such articles belong to the convicted persons.

If a prosecution or conviction of a certain person should not be practicable, a confiscation can be sentenced independently.

SEC. 6. The provisions of this act relative to the traffic in articles of food consumption and in general domestic use, of May 14, 1879 (Reichs-Gesetz-Blatt, p. 145), shall not be affected. The provisions in sections 16 and 17 of same shall be applicable also in case of contraventions to the provisions of the present act.

SEC. 7. The present act shall take effect on the 1st of October, 1887.

[Publication of the chancellor of the German Empire relative to provisions to carry out the act touching the traffic in substitutes for butter, July 26, 1887.]

To carry out the provisions contained in section 3, clauses 1 to 3, of the act in relation to the traffic in substitutes for butter, July 12, 1887, the federal council, in conformity with section 3, clause 4 of this act, has resolved upon the subsequent relations and rules:

(1) For the marking (as prescribed by section 3, clause 1 of the act relative to the traffic in substitutes for butter, July 12, 1887) of the vessels and exterior coverings in which margarine is sold in trade or placed on sale, the inclosed pattern shall be taken as model, provided that the length of the frame surrounding the inscription shall be no greater than five times its height, and in no less than 80 centimeters and no more than 50 centimeters.

(2) The name or the firm of the manufacturer (section 3, clause 2 of the act) shall be attached immediately over, under, or laterally to the said inscription.

(3) The inscription (clauses 1 and 3) shall be attached by burning or painting. In the latter case the inscription must be made with black colors on white or light-

yellow ground. Up to the 1st of April, 1888, it shall be permitted to attach the inscription on labels to be pasted on.

(4) The inscription (Nos. 1 and 2) shall be fixed on the sides of the vessels at at least two opposite places; in case of vessels having a cover, also on the upper surface of the cover, and in case of casks, kegs, and the like, upon the bottoms.

(5) The provisions under Nos. 1 and 2 shall, in the meaning of this act, find application to the coverings used in the retail of margarine (section 3, clause 3), provided that the length of the framing shall be no less than 15 centimeters.

(6) To the marking of the cubic-shaped pieces (section 3, clause 3), provided that there shall be no restrictions as to the size (length and height) of the framing, and that it shall be permitted to divide the word "margarine" into halves, to be placed one under the other and to be connected by hyphens.

Berlin, July 26, 1887.

VON BOETTCHER.

Coloring oleomargarine.—Consul Mealey, of Munich, transmits the following:

The subject of a law concerning the trade in oleomargarine was referred to a commission of twenty-eight, who have finished their investigations and consultations. The examinations which were made are rather favorable for the use of oleomargarine, and the health department has already acknowledged the value of their conclusions, published on the 22d of March, 1887, concerning oleomargarine. That report says: "This product is made in great part from such proper ingredients as are useful in nourishment, namely, the fats or greases; and therefore it is of importance, as it furnishes to the poorer classes a substitute for butter which is cheaper and at the same time nourishing. We think that this want has been supplied in a most satisfactory manner by the manufacture of artificial butter. And it is offered in the markets in a condition superior to natural butter as far as cleanliness and careful preparation is concerned." Although we can agree with the judgment of the royal health department that oleomargarine is a desirable addition to the food supply, yet the object of the law about the traffic in oleomargarine is to be commended, viz, to abolish the extended adulteration of natural butter with oleomargarine. To accomplish this many propositions have been made about the coloring of oleomargarine so that it will be impossible to substitute oleomargarine for natural butter.

In this connection a discovery made by Dr. Fr. Soxhlet, professor in the technical high school and chief of the agricultural experimental station in Munich, is particularly interesting. Starting with the idea that any intense coloring matter would cause a deterioration in oleomargarine, both in delicacy and in nourishing qualities, Professor Soxhlet proposes to add a harmless substance in small quantity, which shall in no way change the color, taste, or smell, or usefulness of oleomargarine, but which, while it can not be removed from the oleomargarine, will yet furnish every one with an easily applied test, so that if only one-tenth of the mixture is oleomargarine it can be at once discovered. The professor recommends as such a substance phenol phtaline, one gram for 100 kilograms of oleomargarine.

A piece of oleomargarine, treated thus with the phenol phtaline as large as a pea, if put on a plate with a drop of common household lye, soda, potassi, or spirits of sal ammonia, and rubbed together well, will immediately give out an intense bright-red color in the piece thus treated. A little cigar ashes made wet, rubbed with the oleomargarine and pressed between folds of white blotting paper, shows a red spot on the blotting paper. The lye and sal ammonia give a more intense and lasting red color. The test is as simple as the well-known litmus-paper test.

Every market-master can make hundreds of such examinations in a short time, and every consumer is furnished with an easy and infallible test. This manner of preparing the oleomargarine with the phenol phtaline does not affect the artificial butter at any stage of its manufacture or at any time in its use. The color never comes out uncalled for, and in preparing meals it does not come in contact with strong alkalies, and so does not discolor.

By this new discovery the principal reasons for the prohibition of the manufacture of oleomargarine have been removed.

Vital statistics of Munich.—Consul Mealey writes:

The report of births, deaths, and marriages in Munich for the year 1886 shows the following items: 9,255 children born alive, 4,749 male and 4,506 female. Of these, 6,385 were legitimate and 2,870 were illegitimate. The percentage of illegitimate children born in 1886 is greater than for any year since 1877, it being, for 1886,

31 per cent. There were 2,154 marriages, the greatest number of marriages in any one year since 1877. There were 239 children born dead. Among the births reported for 1886 are 110 cases of twins and two cases of triplets. The youngest mother of an illegitimate child was in her fifteenth year. In the lying-in hospital, or woman's clinic, 803 children were born, 696 being illegitimate. The deaths for the year 1886 numbered 7,846, of which 3,073 were children under one year; more males than females died during the year. Average age of those who died, 26.19 years. There were 64 suicides, of which 53 were males and 11 females.

Exports from Kingston, Canada.—Under date of October 13, 1887, Consul Twitchell transmits the following:

The exports from this district for the year ending the 30th of September, 1887, show a decrease of \$458,744.29, which is more than accounted for by the diminished export of barley.

The export of lumber and mica will doubtless increase the coming year. The mining and exporting of iron ore are evidently not profitable under present conditions; the mining companies, in my opinion, are kept in existence on the anticipated change in the American tariff, by which iron ore may enter free of duty.

The imports from the United States for the year ending the 30th of June, 1887, amounted to \$867,035, against \$877,243 for the year preceding; imports from other countries, \$351,605, against \$304,365 for the preceding year.

The agricultural interests of this district, in the memory of the oldest inhabitants, have never been worse.

The products of the farm, excepting butter and cheese, will not average a half crop; barley is a little above but other grain is much below the average half crop.

Quite a movement of live stock, in poor condition, has commenced for the United States on account of lack of feed to keep it here during the winter.

The prospect of all trade the coming year is exceedingly dark and discouraging, intensifying beyond anything which I have ever seen the hope for some change in the commercial relations of the United States and Canada by which the Canadian may secure a market for his raw material.

Present condition of the woolen trade.—Consul Williams, of Rouen, transmits the following:

The trade continues good in the centers where textures made from carded wool are produced.

In the north the manufacturers of plain woolen cloth are suffering from having too much of it on hand. At Roubaix and Tourcoing they have had to shorten their hours in some factories. The new fancy tissues, on the contrary, are much in demand. At Fourmies spinning continues regular, but at a loss of 7 per cent. The general opinion is that less should be manufactured, or by the end of the year the prices will be reduced to almost nothing, or else a stoppage will be necessary. A decrease in the amount manufactured, now that the hand-weavers are at work, would have a better result. At a meeting of manufacturers of Fourmies it was agreed to work ten hours a day, or sixty hours a week.

During the seven months of this year Belgium imported 488,360 kilos of woolen yarn, 1,825,680 francs' worth of woolen tissues, cloth, cassimeres, and similar textures; 816,580 francs' worth of coatings and heavy woolen goods, and 8,746,590 francs' worth of light woolen tissues. The exports consisted of 6,646,670 kilos of woolen yarn, 817,630 kilos of woolen tissues, cloth, cassimeres, and similar textures, 108,050 kilos of coatings and other heavy woollens, and 269,690 kilos of light woollens.

The spinners of Bradford certainly are unfortunate. The exporters buy with caution, not at a discount, still at rates lower than the current price of wool. The trades are not filled, still there seem to be fears that the amount manufactured will be more than the demand.

Mohair thread is in a more flourishing condition,

An improvement is felt at Rochdale in flannels; the colder weather has made the merchants urge the fulfillment of their orders, while others press eagerly to have their delayed orders filled.

The French wheat crop of 1887.—Consul Roosevelt, of Bordeaux, transmits the following:

From authentic information received regarding the wheat crop of France for the year 1887 it appears that an increase of acreage was devoted to the cultivation, and the yield is estimated at 117,732,910 hectoliters (or about 831,123,784 bushels), which is an average of 16.09 hectoliters to the hectare. The crop in seven departments is

prime, good in forty-eight, middling in twenty-two, one of which is the Gironde, and mediocre in ten. According to official valuation the harvest of 1886 was estimated at 105,412,370 hectoliters. The yield of 1887, therefore, shows an increase of 12,820,540 hectoliters. In certain departments the wheat is from 7 to 10 degrees heavier than that produced last year in the same localities. Averaging the entire yield, good, middling, and indifferent, the estimate is 5.63 degrees superior to the crop of 1886, rated at 74.50 kilograms to the hectoliter. The present crop is estimated at 78.50 to 79 kilograms, or, to be more exact, 78.75 to the hectoliter.

Taking the yearly average yield, the harvest of 1887 shows an increase of 15,004,024 hectoliters, and in weight 13,356,643 quintals; calculated as rendered into flour, 9,883,916, and into bread, 12,849,091 quintals.

The 117,732,910 hectoliters of wheat harvested this year will produce 68,608,854 metrical quintals of flour, which will give 89,191,510 metrical quintals of bread. France has this year, according to official statement, produced more than sufficient wheat for home consumption. This fact, however, will not prevent transactions in this cereal with other countries. Mills must be employed, and the necessity for speculation will demand the importation of five or six million bushels.

Grant for invention of machinery for thrashing pease.—Consul-General Morgan transmits the following extract from Government Gazette, Melbourne, August 15, 1887:

Grant of £150 for invention of machinery for thrashing pease.

(1) A sum not exceeding £150 may be paid to any person or company who shall, in the opinion of the minister of agriculture, produce a machine capable of thrashing within twelve hours 800 bushels of pease without injury thereto.

(2) The reward shall be paid only to the inventor, or his agent, of such machine as shall most cheaply, efficiently, and rapidly perform the work required, and within the time aforesaid.

(3) Persons intending to compete for the reward must give notice in writing of their intention to the secretary for agriculture, Melbourne, not later than the 24th November next.

(4) One or more trials of the machines shall be made at such place or places and at such times as the minister may direct.

(5) All costs and expenses of forwarding, attendance, and working the machines at the times to be appointed shall be paid by the persons entering the machines for competition.

(6) The minister may appoint three or more judges to report upon the merits of the competing machines, and a decision of a majority of such judges shall be final.

(7) The judges may recommend payment of an amount or amounts, the total of which shall not exceed £150, to the inventor or inventors, or his or their agent or agents, of the successful machine or machines, such amounts to be apportioned to the value to the colony of the said invention or inventions.

JNO. L. DOW,
Minister of Agriculture.

MELBOURNE, *July 19, 1887.*

Increased duties on sugar and lumber in Victoria.—Consul-General Morgan, of Melbourne, under date of September 6, 1887, transmits the following:

A BILL for granting to her Majesty certain duties of customs in lieu of certain other duties.

1. This act may for all purposes be cited as "The duties of customs act, 1887."

2. In lieu of the duties of customs heretofore chargeable on the articles mentioned in the schedule to this act on importation into Victoria by land or sea, there shall be charged, collected, and paid for the use of her Majesty, her heirs, and successors, the duties of customs specified in the said schedule, subject, however, to any exemptions or remissions allowed or to be allowed under or by virtue of the authority contained in "The duties of customs act, 1883," or under any other act in force relating to duties of customs.

3. The schedule to this act, and everything therein contained, shall be read and construed as part of this act; and all acts done on or after the day mentioned in the said schedule shall be as valid as if this act had been passed and had come into operation on the 27th day of July, 1887, and the duties on all goods, wares, and merchandise imported into Victoria, or delivered for home consumption on and after the date mentioned in said schedule, shall be paid, collected, and recovered, and payments in respect thereof may be repaid and adjusted as if this act had been passed and had come into operation on the 27th day of July aforesaid.

4. This act shall be read and construed with and as a part of "The duties of customs act, 1883," and the said act shall be read as though the duties of customs hereby imposed were, from the date mentioned in the schedule hereto, imposed by the second schedule of the said act.

SCHEDULE

In lieu of the duties of customs heretofore chargeable on the following articles :

	s. d.
Timber :	
Dressed or planed	per 100 feet super.. 1 6
Laths	per 1,000.. 1 0
Doors, wooden	each.. 5 0

The following duties shall, on and after the 27th day of July, 1887, be charged on the following articles on importation into Victoria, whether by land or sea :

Timber :	
Flooring-boards, weather-boards, and lining-boards, dressed or planed, per 100 feet super	1 6
Moldings, 3 inches and under, wholly or partly prepared, per 100 feet lineal	4 0
Moldings, over 3 inches, including architraves, wholly or partly prepared	per 100 feet lineal.. 7 0
Skirtings, wholly or partly prepared	do... 7 0
Laths	per 1,000.. 5 0
Doors, 1½ inches and under	each.. 5 0
Doors, over 1½ inches and under 1½ inches	do... 7 6
Doors, 1½ inches and over	do... 10 0
Dressed pickets	per 100.. 6 6
All other timber under 7 inches x 2½ inches not otherwise enumerated (excepting kauri, cedar, and blackwood, undressed timber, and American white pine, California redwood, and sugar pine, 1 inch and over; undressed, sycamore, oak, ash, whitewood, and hickory, which shall be free)	per 100 feet super.. 2 6
In lieu of the duties of customs heretofore chargeable on the following article :	
Sugar	per cwt.. 3 0
The following duties shall, on and after the 27th day of July, 1887, be charged on the following articles on importation into Victoria, whether by land or sea :	
Sugar, the produce of sugar-cane	per cwt.. 3 0
Sugar, the produce of sugar-cane, bonded on and after the 27th day of July, 1887, and refined in Victoria in a bonded warehouse under regulations to be framed by the governor in council	per cwt.. 2 0
Sugar, the produce of beet-root, and all other sugar	do... 6 0

Frauds in Tientsin exports.—Consul Smithers sends the following :

Information has been recently received in Tientsin, from London, that frauds have been committed by the Chinese manufacturers in straw braid, and in other native produce shipped at Tientsin during the present season. It is alleged that much of the large stock of straw braid exported has become unmerchantable, by reason of damp bundles having been packed with the dry and the use of sulphur for bleaching and pernicious dyes for coloring. It is reported that upon many of the shipments of straw braid to London there has been a total loss. The editor of the Tientsin Times, in alluding to these frauds, has the following :

"What with the bad condition of much of the stock, the growing frauds of the Chinese in giving short measure, irregular makes, inferior straw, bad dyes, mixture of inferior bundles with the better kinds, the Tientsin trade is in a bad way, and as all shipments from China are now and justly regarded with distrust by the home dealers, it seems likely that business once so promising will come to an end."

It also appears that frauds have been practiced in shipments of hides from Mongolia, camel's and sheep's wool, horse-hair, bristles, etc. It is said that the hides were generally found to be wormy, and the camel's hair and wool loaded with sand to the extent of 33 per cent. As large shipments in these products are being made to the United States, and as similar complaints are likely to arise in the markets there as in London, I would suggest as a remedy for the future trade that our merchants instruct their agents here to be more careful in their purchase and reject any merchandise not entirely sound or otherwise faulty. This would compel the Chinese native traders to desist from their malpractices.

325-5-9

BIMETALLISM IN EUROPE.

REPORTS

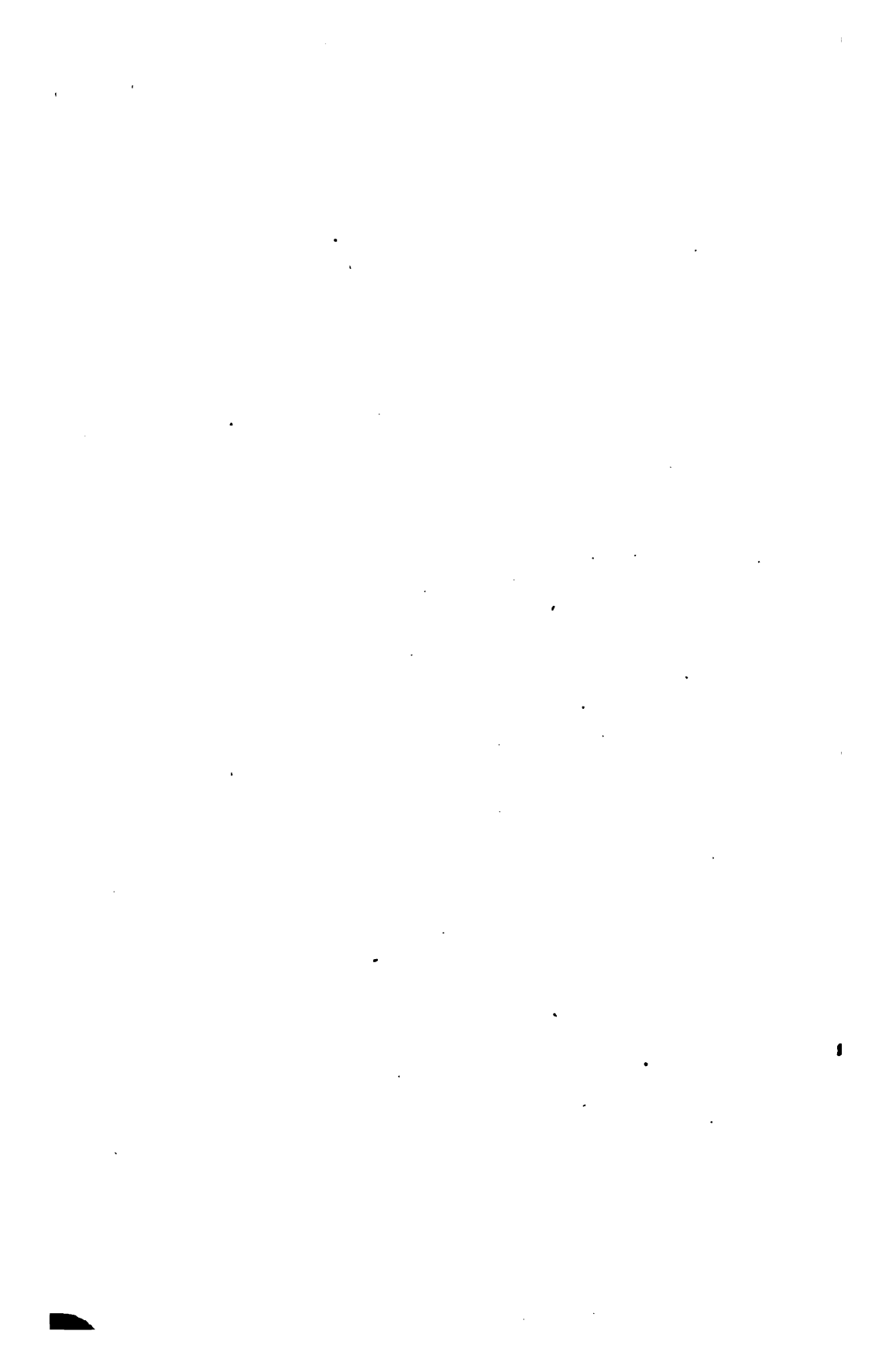
FROM THE

CONSULS OF THE UNITED STATES.

No. 87.—DECEMBER, 1887.



WASHINGTON:
GOVERNMENT PRINTING OFFICE,
1887.



CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

No. 87.—DECEMBER, 1887.

NOTE.

While the production, commerce, and general economic conditions of the precious metals have not been fully treated in the Consular Reports, there have been many references to these matters—references that would require much study and research to fully comprehend. To make good the omissions, and also to supply material for future reference, it has been deemed advisable to print Mr. Atkinson's report and Prof. Tausig's translation of Dr. Soetbeer's "Materialen" in the series of Consular Reports.

W. C. F.

Message from the President of the United States, transmitting letter of the Secretary of State inclosing report of Edward Atkinson on bimetallism in Europe.

To the Senate and House of Representatives :

I transmit herewith a communication from the Secretary of State, accompanied by the report of Mr. Edward Atkinson, of Massachusetts, who was specially designated by me, under the provisions of successive acts of Congress in that behalf, to visit the financial centers of Europe in order to ascertain the feasibility of establishing, by international arrangement, a fixity of ratio between the two precious metals in free coinage of both.

GROVER CLEVELAND.

EXECUTIVE MANSION,
Washington, December 20, 1887.

To the President :

In furtherance of the objects heretofore set forth in the resolutions of Congress to obtain an international ratio under which the use of bimetallic money should be secured, I have, under your instructions, kept in view the uniform purpose and policy indicated by Congress, and accordingly in March last, under your direction, I sought and obtained the services of Mr. Edward Atkinson, of Massachusetts, a gentleman especially qualified for the examination of public economies, to obtain abroad the information required for the elucidation of the important question referred to.

Mr. Atkinson was therefore instructed by me in substance, that you considered it your duty to obtain for the benefit of the American people the best information and most reliable knowledge on the subject to be had in the official and financial circles of the leading European states—notably, England, France, and Germany.

To this end, it was believed that, being especially accredited to the American ministers abroad, and aided by their introduction personally to such European officials with whom he might consider it discreet and expedient to consult, he should obtain the most intelligent and authoritative opinions upon the present status and probable future of the two metallic currencies, with a view to the retention of both the precious metals in full legal-tender coinage.

Mr. Atkinson's suggestion as to the probable increased use for silver coins to meet the expanding commercial demands of the new and vast semi-civilizations in both hemispheres, proceeding *pari passu* with their production of raw or partly manufactured materials, were considered impressive, and capable of being used with important effect in shaping that consensus of opinion among the commercial states which may enable them to arrive at a common ratio of acceptance of the two precious metals.

Mr. Atkinson was further informed that you felt it to be your duty to relax no effort to effect a co-operation among the leading commercial nations to establish such a fixed international ratio of universal equivalent between the two precious metals as will permit the free coinage of gold and silver alike.

The important duty thus indicated was undertaken by Mr. Atkinson, and every aid and facility given to him by this Department to enable him to accomplish satisfactorily the end in view.

Mr. Atkinson has executed the duties thus devolved upon him and made report thereon to you, which I have now the honor to submit, together with certain addenda which contain much information collected by him in relation to the subject.

It is believed that no contribution to the knowledge of this important subject will be found to be of greater value than that of Prof. Adolph Soetbeer, in his treatise upon "The materials towards the elucidation of the economic conditions affecting the precious metals and the question of standard value."

Following the earnest recommendation of Mr. Atkinson, I have obtained an accurate translation of this work by the hand of a distinguished scholar and political economist, Prof. F. W. Taussig, of Harvard University.

All of which is now respectfully submitted.

T. F. BAYARD.

DEPARTMENT OF STATE,

Washington, December 20, 1887.

BOSTON, MASS., *October 1, 1887.*

TO THE PRESIDENT:

SIR: Having been requested by you, through the Secretary of State, to visit Europe during the past summer in order to investigate the status of bimetallism, I beg leave to report:

Under instructions from the Department of State, I have visited London and Manchester, Paris, Berlin, Brussels, and Amsterdam, together with other places as circumstances or the necessity for interviews with persons of importance in this discussion have made it expedient.

I have met and consulted many of the financial ministers, the chief officers of all the national banks in the countries named, except one, namely, that of Holland; many officers of private banks and many bankers of distinction, most of the members of the Royal Gold and Silver Commission of Great Britain, which is now engaged in the examination of the same question, and lastly, many leading economists, statisticians, and legislators.

The resident ministers of the United States have rendered me every assistance in their power, and I have been everywhere received with the utmost courtesy and attention, as I have reported to the Secretary of State from time to time in detail.

Owing to the official positions which most of the gentlemen designated now hold, the necessary condition of a full and free exchange of views has been that I should quote no names or individual opinions in my official report. This renders it necessary for me to confine my report to the general conclusions which I have reached, without the citation of authorities.

In presenting this case for discussion, beginning early in June, my method has been as follows:

I have stated that the circumstances of the time in the United States, such as the payment of all the interest-bearing bonds which are now due, the impending contraction of the paper currency by the withdrawal of bank notes from circulation, the probable accumulation of the surplus revenue in the Treasury in the form of legal-tender United States notes or coin and other influences, might soon render important legislation an absolute necessity, both in respect to our monetary system as well as to the reduction of taxation. I next called attention to the fact that in the mean time this contraction of the paper currency might or must in almost any event continue long enough to render the circulating medium of the United States insufficient for the wants of the country. Therefore, a heavy and perhaps long continued draft for gold coin might be made upon the reserves of coin of Europe to fill the gap, which demand soon after began and has not yet ceased.

In view of such prospective legislation in the United States, I have stated that it had become very desirable to ascertain what changes in monetary legislation, if any, were likely to be made ere long in Europe; and it having been confidently represented in the United States that the bimetallic theory was making rapid progress, the main purpose of my mission had been to ascertain the facts. It being important that if any such action were about to be taken by the commercial and manufacturing states of Europe to restore the free coinage and full legal tender of silver at any agreed ratio of silver to gold, suitable measures might be advised by the Executive, or might be taken by the Congress of the United States, for concurrent action.

I have further stated that if the principal commercial and manufacturing states of Europe had no immediate intention of changing from

the present status of a limited coinage of silver for subsidiary use, the standard of full legal tender being limited in practice to gold coin only, then it might become the true policy of the United States to take action to maintain the gold dollar as the "unit of value" according to the present statute, and for the Executive to recommend to Congress suitable measures, if any further action is necessary, to maintain permanently the present interchangeable quality or convertibility of our currency into gold coin on demand, whether consisting of notes, silver coin, or silver certificates.

From the beginning of my work, early in the month of June, until the present date, I have called urgent attention to two points which I considered of paramount importance:

(1) That for the reasons given, to wit, the contraction of bank notes through the payment or sale of the bonds which are required as security for their issue, and the withholding of legal-tender notes or coin in the Treasury owing to the rapid accumulation of a surplus, the currency of the United States was steadily tending toward an absolute bullion basis, *i. e.*, tending to consist, for the time at least, mainly if not wholly of paper certificates issued by the Government, sustained in full, dollar for dollar, in specie; which tendency might cause a very heavy and continuous draft on the gold reserves of Europe in the fiscal year from July 1, 1887, to July 1, 1888, if not for a longer period.

(2) That for reasons which will be fully given hereafter, silver had been unduly discredited and depressed in its price as bullion in Europe, while it still retained substantially its full value or purchasing power among the vast populations of other continents, among whom it is and must remain the principal and necessary money metal for use in the form of coins.

I have therefore submitted the case as one in which immediate action would be desirable if any action were contemplated in Europe for the adoption of the bimetallic system; since the restoration of silver to its full function of legal tender might avoid a financial stringency such as might otherwise be brought about by any important draft upon the gold reserves of Europe.

I have ventured to suggest that if the very able and discreet financial authorities of Europe should now conclude that there were great advantages to commercial and manufacturing countries in maintaining the single standard of legal tender upon gold only, and if no present action were taken for a bimetallic treaty of legal tender, it would not be probable that the United States would surrender its great advantage of position on the same basis, *after* having established its monetary system on a full and absolute bullion reserve covering its paper almost dollar for dollar and consisting mainly of gold coin. It might therefore happen that the concurrence of the United States, if considered important, would perhaps be more readily secured now than it could be hereafter, if at some future date the bimetallic system or option of legal tender, in either gold or silver, should become desirable to European states.

I have presented these views as impartially as possible to the representatives of both monetary theories, called "Monometalism," and "Bimetallicism," and I have sustained them in detail by considerations which are fully given in Appendix A, to which reference is made.

I submit this full statement of my method of procedure in order that no doubt may be felt in regard to my conclusions as to the present status, upon the ground that my own private convictions might have given a bias to my course.

I have endeavored as far as possible to limit myself to procuring information without making any personal attempt to influence opinion, except to remove what I believe to be the unwarranted discredit of silver and to give to the influences which ought perhaps to operate in advancing the price of silver bullion the prominence which I think is due to them.

Believing most fully that bimetallism exists *de facto*, and that the use of both silver and gold as monetary metals is an absolute necessity, I have endeavored to direct more attention to the laws of commerce, which in the long run must govern their distribution and circulation, lest the discredit of silver and the local depreciation in its gold value should be increased and prolonged by misdirected efforts to restore silver to its former ratio, resting wholly upon statutes of legal tender.

Admitting most fully the evil, both present and prospective, growing out of the change in the ratio of silver to gold in the last few years in the principal financial centers, and especially in London, and in view of the fact that the continued coinage of standard dollars, even at only the present rate, will slowly but surely bring the money of full legal tender in the United States to the standard of silver only, at whatever ratio to gold it may then bear, it has seemed to me suitable to use every means in my power to remove the discredit of silver and to call attention to the powerful forces which are now just beginning to act, but which cannot fail to increase the demand for silver coin over great continents.

I have reason to believe that my efforts in this direction may have partly removed the dread of a prospective "avalanche of silver," as it is sometimes called, from the continent of North America, especially from the United States, and that this fear, which has been perhaps the most potent cause of the unwillingness even to consider the question of bimetallism, may be wholly removed by the further investigation as to the relative production of silver and gold which may ensue. Another dread may also have been removed, to wit, that of a sudden change of policy in the United States leading to the cessation of silver coinage and also to the possible attempt to dispose of a considerable part of the present stock of silver coin. The people of Great Britain are so wholly unaccustomed to the use of any representative paper money of less denomination than the five-pound notes of England or the one-pound notes of Scotland, that I think there has been no real appreciation of the manner in which the silver certificates of the United States have passed into the circulation, or how easily they are now maintained at par in gold, taking the place of bank notes as they are disused and of legal-tender notes as they may be of necessity rather than choice withheld in the Treasury.

While I can not hold out any prospect of any present action for restoring the free coinage or full legal tender of silver, I may perhaps be justified in the discharge of the duty imposed upon me by having removed certain very great misconceptions which have prevented a true consideration being given to the question at issue, and perhaps it may have fallen to one who had not been identified with the advocacy of a bimetallic treaty of legal tender to do what those who rest the value or ratio of silver to gold almost wholly upon statutes or treaties might not have accomplished.

Having thus stated how I have endeavored to perform the duties assigned to me, I now report that in my judgment—

(1) There is no prospect of any change in the present monetary system of European states which can modify or influence the financial policy of the United States at the present time.

(2) There are no indications of any change in the policy of the financial authorities of the several States visited by me which warrant any expectation that the subject of a bimetallic treaty for a common legal tender, coupled with the free coinage of silver, will be seriously considered at the present time by them.

(3) There is no indication that the subject of bimetallism has received any intelligent or serious consideration outside of a small circle in each country named, as a probable or possible remedy for the existing causes of alleged depression in trade.

(4) There is no considerable politically organized body of influential persons in either country with whom a combination could be made, if such a combination or co-operation were desirable on the part of a similar body in the United States, for promoting any definite or practicable measures of legislation to bring about the adoption of the bimetallic theory according to the commonly accepted meaning of that term. The discussion is as yet almost wholly personal, and without concentration of purpose or the presentation of any well devised measure capable of being acted upon.

The exact status of the question is as follows: What is known as the bimetallic theory of coinage and legal tender may be said to be adhered to in principle by France and by the other members of the Latin Union, but the free coinage of silver cannot be resumed without the concurrence of Germany.

Spain, which does not belong to the Latin Union, continued the free coinage of silver until quite a recent period, but has been compelled to cease by the constant drain of gold.

Holland, as I am informed, waits events, under acts which will enable her authorities to maintain the gold standard without further legislation if it should be imperiled. See Appendix B.

There is some apparent difficulty in France, but not much, in maintaining the present large volume of silver coin, which is of full legal tender substantially at par in gold. The volume of this currency is large, but the habits of the people of the Latin Union, especially of France, render a very large volume of actual money in circulation an absolute necessity, much larger per capita as compared with the amount in other great commercial and manufacturing countries. Personal credit is very limited; the use of checks, even for the payment of considerable sums, such as the rent of houses or apartments in Paris, is almost unknown. Daily purchases of the means of subsistence are paid for in money, and great sums are hoarded. The payment of so much of the indemnity required from France by Germany, after the Franco-Prussian war, as was paid in actual coin, is assumed to have been almost wholly derived from the hoards of coin previously held by the people, who then subscribed in such ample measure for the *rentes*. Hence the silver coin keeps in circulation or is hoarded, while the banks and bankers of France are sustained by a very large reserve of gold.

There is a strong minority of able men in France, however, who advocate the maintenance of the single standard of legal tender in gold coin only.

Germany cannot or will not take up the consideration of any change in her present acts without the concurrence of Great Britain. The discussion of the theory of bimetallism is actively continued in an academical manner by the professors of her universities; but in March last, at a convention of delegates, the various chambers of commerce, which are very important representative bodies, declared against any change in existing acts by a vote of 71 chambers to 4. *Vide* report of her Britan-

nic Majesty's Consul Strachey, of Dresden, to the Government of Great Britain, a copy of which is submitted herewith.

Great Britain awaits the report or reports of the Royal Commission on Gold and Silver, which has adjourned until the autumn or winter, after the examination of sundry witnesses whose testimony has been published, a copy of which is submitted herewith.

The possibility of a bimetallic treaty without the concurrence of Great Britain has been suggested, but it has apparently no prospect even of consideration in Germany, and very little elsewhere. At every point, and by the representatives of every phase of opinion on the continent, I was assured that the continuance of the present status or the future adoption of a bimetallic system of legal tender virtually rested upon the action of Great Britain. I beg to say, however, that these opinions are not based upon any official statement made to me by any officer of any Government. It therefore becomes most important to give the exact status of the question in England, and to this matter I have given very close attention.

The advocates of the optional or alternate legal tender of gold or silver at an agreed ratio, commonly called bimetallists, are zealous, sincere, active, and aggressive. The advocates of the single legal tender of gold coin, commonly called monometallists, are at present rather passive and inert than active in opposition, relying more upon the innate conservatism of the English people than upon positive defense of their theory and practice at the present time.

The bimetallists have brought to their support the East Indian civil and military officers who maintain their families in England, and who are obliged to remit depreciated rupee paper to London; also a portion only of the manufacturers and merchants, especially of Lancashire, who have been exposed to more or less difficulty and expense in realizing the proceeds of their goods, which are exported to the East. Outside of these two classes, who have, or are assumed to have, a direct personal interest in the matter, the great body of the English people are apparently indifferent or else are ignorant of the subject. Bimetallism has not yet become a live question of any great parliamentary or political importance.

Some of the most zealous bimetallists earnestly believe that the present great depression in English agriculture is due mainly to the low price of wheat, and that the price of wheat is established by the competition of India; furthermore that the depreciation of the silver rupee in London works a corresponding bounty upon the export of East India produce, it being alleged and apparently proved that in the domestic traffic of India the rupee retains its former purchasing power, or very nearly so.

It is held by many persons who do not accept this reasoning that if the advocates of the bimetallic system should create a popular impression that the present depression in the price of agricultural products could be imputed to this cause, then the issue might at once assume a parliamentary and political importance which it has not yet attained. This might again be hastened if the prospective draft of the United States should make such an apparent scarcity of gold, even for a limited period, as to sustain the view that it is gold which has appreciated, and not silver which has depreciated.

If, on the other hand, the deficient crop of Indian corn in the United States in the present year, or any other cause, should change the conditions and tend to put off this strain upon the gold reserves of Europe by diminishing our exports while our imports are increasing, it is held

that the consideration of the silver question would remain substantially as it now is, awaiting the report of the Royal Commission, after which the beginning of a thorough discussion may be reached, in which both sides will be represented.

I submit these various views, which have been derived from many sources, giving my own judgment that no change will occur in the position of Great Britain and therefore of Europe for a long time to come; certainly not in season to affect the present or even the prospective policy of the United States. In such event it may be necessary for the United States to frame any changes in its own monetary system, if any are now advisable, in such a way as may best promote its own interest, irrespective of any prospective change in the policy of any other country. In short, monetary legislation has not yet become a department of international treaty or law.

Having reached this conclusion while treating the subject wholly on the monetary side, and irrespective of the special interest of the United States both as a producer of silver bullion and the owner of a very large quantity of silver coin, it seemed to me to be wholly within the scope of my duty to consider the grounds on which silver has been so much discredited, and to present in as public a way as possible the reasons why an increased demand for silver relative to probable supply may presently restore the price of silver more nearly, if not absolutely, to the price which it bore for many years prior to 1873, to wit, about 60 pence per ounce, or to a ratio of about $15\frac{1}{2}$ to 1 of gold.

I found that so far as any public discussion is concerned on the part of the principal advocates of "bimetallism" little attention had been given to the relative supply of or demand for either gold or silver. This is due to the fact that they hold that the value of both is due much more, if not wholly, to statutes of legal tender than to relative production and necessary use; in some cases only they allege rather than prove a scarcity of gold.

On the other hand I found, as I have before stated, among the advocates of "monometallism" a continued and somewhat indefinite dread of an "avalanche of silver" from the North American continent with little, if any, regard to cost of production, and at any price which might be obtained. I had once been myself subject to a similar misapprehension of the probable supply of silver, but had long since laid aside this impression and I was not prepared to find it existing here in such full force.

As it had been the opinion expressed by myself to you some months since that the price of silver might slowly but surely recover in consequence of the increasing demand of the vast population to whom silver is the necessary money metal, which led to my appointment on my present mission, I have taken every opportunity to present this view to the gentlemen with whom I have had conferences and to test it by discussion.

It has been received by nearly every one to whom it has been suggested as a matter of the utmost importance and one which had as yet received little or no consideration. The hope has been expressed that the testimony of experts on the present and prospective product of silver bullion in other countries, especially in the United States, might be taken at the earliest possible day, so that it may soon appear whether or not the reduction in the price of bullion has caused any important cessation in silver mining, and also to what extent productive silver mines have been exhausted.

In order that this matter might be most fully and promptly considered I ventured to accept an invitation to make an address on the necessary existence of bimetallism and the necessary use of both gold and silver as money metals before Section F (Political Economy and Statistics) of the British Association for the Advancement of Science, a copy of which address is hereto appended as a part of this report (Appendix A).

The meeting of the Association also gave me the opportunity to meet many gentlemen of great influence who had taken part in the discussion of this question, and whom I could not have met in any other way without devoting a great deal more time than had been assigned to me in your letter of appointment.

At this point I might perhaps conclude my report and rest its submission, with the accompanying documents; but there has been a growing impression in my mind, which has become almost a certainty, that there are some further conclusions to be drawn from my experience in this mission, to which the attention of the Government should be called.

The most important point which I beg leave to present is this: I am convinced by my own observation, sustained by the judgment of others, citizens or officials of the United States, whom I have consulted, that it would be unwise and inexpedient for the United States again to take the initiative in promoting action for a general adoption of a bimetallic legal tender, coupled with the free coinage of silver, for the reason that such action is misconstrued and may tend to retard rather than to promote the object aimed at. It may also increase rather than diminish the discredit of silver.

The reason is this: The general conviction among the financial men in Europe is that the United States Government is loaded with an excessive quantity of silver dollars which it cannot get into circulation. These dollars are coined at a standard which is at variance with the silver money of any other country, to wit, at the ratio of 16 of silver to 1 of gold. It is believed that the financial officers of the United States are convinced that the product of silver is excessive, and that the ratio of silver to gold, *i. e.*, its price as bullion, is liable to fall even lower than it is now; therefore any initiative by the United States is looked upon as an attempt to relieve itself of an unprofitable stock and to provide a market for the future product of silver. Any effort of the United States to promote a bimetallic treaty and to restore the free coinage of silver is not therefore regarded as a sincere effort to promote a better monetary system of which all nations may share the benefit, but rather as being induced by a desire to promote the special interest of the United States at the cost of whom it may concern.

It is utterly impossible for the thoroughly trained and intelligent statesmen of Europe, either bimetallists or monometallists, to comprehend why the United States should continue to coin dollars of the present standard of the ratio of fifteen and ninety-eight one-hundredths (15.98), say sixteen (16) parts of silver to one of gold, which cannot be adjusted by any treaty to the present standard of any silver coin in circulation in other countries without the recoinage of European and East Indian coins. Therefore, when the subject of a common legal tender is suggested, the question comes up about in this way: If the United States really mean what they propose, the coinage of Bland dollars must of necessity be stopped and the coin be withdrawn. For, if free coinage were re-established in Europe, and a treaty of common legal tender were made at the ratio of fifteen and one-half (15½) to one, and if Bland dollars were still outstanding, all these Bland dollars would immediately be shipped to Europe and India, and the Uni-

ted States would be relieved of the burden. On the other hand, the United States could not agree to coin at any higher ratio than, say, fifteen and one-half ($15\frac{1}{2}$) to one, without a recoinage on their own part of the dollars now existing at the ratio of sixteen (16) to one. A treaty is impossible except the same ratio be adopted by all the parties thereto.

It will be remembered that long anterior to 1873 a considerable amount of standard silver dollars, of the same weight and fineness as those which are now coined, were issued from the mint of the United States; but as the price of silver in London was then a fraction over sixty (60) pence per ounce, these dollars were worth in gold a fraction over one hundred and three (103) cents per dollar. They were all therefore exported to be recoined in Europe at the ratio of fifteen and one-half ($15\frac{1}{2}$) to one, or else were melted into plate. It is apparent that if an international treaty for a common legal tender of silver coin were adopted, and the standard coin of Europe were maintained at fifteen and one-half ($15\frac{1}{2}$) to one, the present standard dollar of the United States would take the same course as before. It is evident that if the grains of gold which are contained in one gold dollar could be exchanged for silver coin at the ratio of sixteen (16) parts of silver for each unit of gold, while this silver could be converted into legal-tender coin at the ratio of fifteen and one half ($15\frac{1}{2}$) parts of silver to one of gold in Europe, there would be a constant profit in the exchange of European gold for American silver. On the other hand, if the European States were to adopt a ratio, say, of eighteen or nineteen (18 or 19) parts of silver to one of gold, which plan is now suggested by some of the East Indian bimetallicists, then a corresponding exchange of the gold of the United States for the silver of Europe would begin, and such silver would thereafter be converted into coin in this country at the present ratio of sixteen (16) to one, it being assumed that we had then agreed by treaty to free coinage without altering our standard.

It therefore follows that so long as the present coinage of the silver dollar of the United States is continued, no proposition for a bimetallic treaty for the full legal tender of silver coin can be entertained by European states, since they will not consider, under any circumstances, a proposition for the recoinage of their own silver in order to adjust it to the standard of the United States.

If European nations enter into a bimetallic treaty it might be with the expectation that the opening of all mints to free coinage either of gold or silver in Europe, on a standard of fifteen and one-half ($15\frac{1}{2}$) to one, would bring the price of silver bullion back to a fraction over sixty (60) pence per ounce. If it did not do so, then it would not have the effect which the advocates of the bimetallic theory expect, and the whole purpose of the treaty would fail.

In fact, the United States by maintaining the present standard dollar, virtually declare to the public that it requires sixteen (16) ounces of silver to be equal to one ounce of gold. The United States, therefore, to that extent discredit and depreciate silver bullion below the standard formerly in force among European nations, who coined only fifteen and one-half ($15\frac{1}{2}$) ounces of silver as the equivalent of one ounce of gold. The present acts of coinage in the United States therefore depreciate silver as compared to the European and East Indian standard.

Men differ as to what the effect of stopping the monthly purchase of bullion would be upon the price of silver bullion. Some of the most ardent bimetallicists hope this purchase will be stopped, because they think it would promote a further fall in the price of bullion, create

greater confusion in the exchanges, especially with India, and thus force action on the part of Great Britain.

Others pay no regard to probable effect, but simply hold that so long as the coinage of dollars at the ratio of 16 parts of silver to 1 of gold continues, while the ratio in substantially all other countries is $15\frac{1}{2}$ to 1, so long will any proposal for a bimetallic treaty on the part of the United States be utterly barred from consideration, if not open to suspicion.

Others hold, with whom I myself fully concur, that in view of the increasing demand for silver, the fall in the price of bullion, if any were caused by the cessation of purchases by the United States, would be very slight and of very short duration.

I beg leave to submit with this report—

(1) A copy of the testimony given before the Royal Commission on Gold and Silver.

(2) A copy of a report on the present state of the question of bimetallicism in Germany, by Her Britannic Majesty's consul, G. Strachey, of Dresden.

(3) A copy of the last edition of the "Materialen," by Dr. Adolph Soetbeer, whose figures are customarily accepted as of the highest authority, the only exception taken to the accuracy of this compilation being in respect to the large estimate which Dr. Soetbeer gives of the consumption of gold in the arts. I earnestly recommend the translation and publication of this document.

(4) A note on the monetary system of the Netherlands, by Prof. H. B. Greven, which I also recommend for publication.

(5) My own address before Section F of the British Association for the Advancement of Science.

Very respectfully, your obedient servant,

EDWARD ATKINSON.

APPENDIX A.

WHAT IS BIMETALLISM?

[Read before Section F of the British Association for the Advancement of Science, by Edward Atkinson, September 7, 1887.]

This question may perhaps be considered rather a singular one to be asked at the present time, when a royal commission is engaged upon the examination of the subject, at the urgent instance of the advocates of the theory, and with a view to its possible adoption in Great Britain and elsewhere.

Yet it has been my experience, while myself engaged upon a similar examination, that about nine men out of ten, even of those who might be expected to have some definite views upon the subject, when asked their opinion upon the expediency or necessity of adopting a bimetallic monetary system, will reply, "Oh, that is a very important question, but I do not pretend to understand it."

Yet more strange does this become when men of great intelligence, who hold or who have held high financial position, attribute the fall in prices and the depression in trade, which is said to have existed for several years, to the alleged "demonetization" of silver since 1873.

A few persons only will answer on the one side, "that they cannot see how two substances of unequal cost can be made of equal value by legislation." A few others will say, "If money derives its value from acts of legislation, why use such costly materials as either silver or gold; why not use copper or paper altogether?"

On the other side, a good deal of feeling is expressed against those who are said to have "boycotted silver"; whilst those who cannot wholly give up the idea that the cost of production is an element in determining the value even of the precious metals are apt to be considered rather obtuse in their reasoning power.

The very earnest manner in which the views of ardent bimetalists are presented, and the very sincerity of their own convictions, has led a large number of persons to think that some very grave wrong must have been committed somewhere, which should be speedily remedied by law-makers. Even the poor English farmer who can no longer raise wheat at a profit on leased land, and who cannot make free use of the land for other crops under the present conditions of his lease, is assured that it has not been the extension of the railway system in America and of India and the construction of the Suez Canal that have brought cheap bread to the multitude, but that wheat has fallen in Mark lane from 50 to 34 shillings a quarter, or less, because a silver rupee which used to be worth 23 pence gold in Lombard street will now bring less than 19.

Yet, in the face of this admitted uncertainty, it is expected that public opinion shall be brought to bear upon this subject, and that legislators shall perhaps be compelled by the very force of public opinion to change all the acts relating to coinage, legal tender, and other acts pertaining to money, lest greater disasters should occur than those which have already been imputed to the acts of the several countries by which silver is said to have been "demonetized."

In my own country the case is aggravated by the fact that we possess a considerable number of important deposits of silver ore, from which we annually produce a quantity of bullion, which may bear a ratio to our total annual product of a little less than $\frac{1}{4}$ of 1 per cent.; which product has cost us (in the opinion of most competent observers), if regard be given to the time and labor which have been devoted to unprofitable mines and to the waste in fraudulent enterprises, at least \$2 in gold value for every \$1 of silver bullion produced.*

* Reference is made to the small relative importance of silver bullion in the United States—considered as a national product—not for the purpose of underrating it, but because a false impression prevails in Europe that it has become a branch of industry of great importance, and that we can increase the supply of silver bullion to an indefinite amount, whenever we can find a market for it, at the present or at a very much lower price.

Does not this, in part uncertain and in part intolerant, condition of the public mind lead one to infer that the bimetallic theory has been treated as yet, only or mainly, in an academic way, without much regard to fact; or else in terms which are not common modes of thought or of speech among every-day people? Is not this one of the reasons why many other problems which come in the domain of political economy have been little comprehended by those whose affairs are most directly connected with or affected by them?

If this is so, the remedy may be found in translating the language of the schools and the terminology of the professed bimetallists into the common speech of the counting-room and of the exchange.

To the mind of the practical business man, whose study of political economy has been primarily based on the observation of events, guided by the principles which have been laid down by Adam Smith and a few great masters—with the use of other books and current treatises merely as secondary aids to reflection—it seems a very mistaken way to discuss bimetallism as a theory, when bimetallism exists *de facto* in almost every country which has any coin of any kind in circulation, and when it can be observed in all its bearings.

It also seems to be rather a waste of time to discuss either the alleged or prospective demonetization of silver by England, Germany, or any other nation, when silver has not been and can not be demonetized or deprived of its function as a money metal any where; or when the very conception of doing away with silver money is almost unthinkable, so universal is its use. Is not the silver coin which is in your pocket and in mine at this moment money—according to any meaning or definition of that word which has yet been given to it? In the vast majority, in point of number, of every day's bargains or sales, does not silver money do a part or the whole of the work?

It is only when one attempts to pay a debt previously incurred, say of one hundred pounds, by offering two thousand silver shillings, that he may find that silver coin fails in one out of the many functions of money; and he may then become aware for the first time of the grounds on which the bimetallic theory now rests. He may then be informed for the first time that the only money which is entitled to the name is that which has been declared by statute to be a legal tender for deferred payments. May I venture to suggest that the very conception of what is meant by legal tender is something out of the common course of thought. I suppose that not one man in a thousand would know how to make a legal tender without he first took the advice of counsel.

The very origin of legal tender is obscure, if not unknown. I have asked many learned lawyers to tell me when and where an act of legal tender was first applied, or by whom, and not one has been able to answer.

It is known, however, that money, in the form of coins made of gold and silver, was in use or circulation before acts of legal tender came into force. Nearly all, if not all the original names of such coins show that they were derived from the weight of metal in them, and were intended to indicate it. It may, therefore, perhaps be inferred that the first act of legal tender was conceived in fraud by a despotic government, in order to force a creditor to take less valuable coin than his contract called for. It is well known that some of the basest acts of tyranny have been the forced circulation of debased coin.

It may not, however, be denied that, whether born in fraud and nursed in corruption or not, the function of being legal tender has become a useful if not a necessary function of money; but to attribute the whole power, use, and circulation of money to this single incident in its use seems to me a grave abuse of reasoning, and to weaken rather than to strengthen the argument for a bimetallic system.

It is held, however, by most conspicuous and able advocates of bimetallism, if not by all, that acts of legal tender are necessary even to the circulation of coined money, of whatever metal it may be made, and that the ratio of either gold or silver to each other or to merchandise, services, or land might be very different to what it actually is, if the law did not force creditors to receive coins of given weight and fineness in payment of debts due to them.

It is also held by bimetallists that if a given ratio between gold and silver shall have been established, say 15½ parts of silver to 1 of gold, or any other, and that by agreement among commercial nations either kind of coin shall be a legal tender for debts, then they will become everywhere convertible or interchangeable at that ratio.

It is held that there can be no variation in the rate of exchange between one country and another growing out of the use of one or the other metals as the principal metal, but that, if free coinage is granted to both at the agreed ratio, the only variation in exchange which could be imputed to the quality or kind of metal would represent only the difference in the cost of transportation.

One proposition of that most conspicuous and able bimetallist, Henri Cernuschi, may be most heartily accepted, if all else are rejected (I quote from memory): "That only is good money which will stand the test of fire, and which is worth as much as bullion when melted as it had been worth in the coin itself."

It is further held that if such a bimetallic treaty of legal tender were made, thereafter the two metals would be as one mass, and that their value or ratio to merchandise or services would be subsequently governed by the joint product or supply of both metals, without being affected by the specific or varying quantity of each which might be produced in any one year.

Finally, it is held that any subsequent change in the ratio of gold and silver to merchandise and services would be almost inappreciable in any customary period of commercial credits, or in any ordinary period of mortgage debts, railroad bonds, or other commercial obligations; for the reason that the joint product of both metals in any one year bears so small a proportion to the total mass of gold and silver in existence, or in circulation as coined money.

In support of these views the advocates of bimetallism, or, as it might be more properly called, of an alternate or optional choice of legal tender, are apt to say that when silver coin has been deprived of the full power or force of legal tender it has been "*demonetized*."

If their proposition can be sustained that coined money only obtains its title to be called money and only circulates as money by the force or power imparted to it by legislation, then they may be right. If it is true that unless coin is a full legal tender it is not money, it may be suitable to affirm that coin can be demonetized by the repeal or limitation of its legal tender quality; otherwise the use of the word *demonetized* is misleading, and this, it seems to me, is the principal cause of the confusion which now prevails.

The writer found great difficulty in considering these propositions until he took the ground that neither the terms bimetallism nor monometallism, as commonly used, had been rightly applied to the existing monetary condition of nations, and that the word demonetized had been wholly misapplied.

It must, I think, be admitted that gold and silver had become the customary materials of money—had been endowed with all the functions of money—and had been minted, shaped, stamped, or coined into specific pieces of money of given weight before the conception of an act of legal tender could have arisen. It must also be admitted that both ordinary coin or pieces of silver in other forms, as in China, now circulate as money among nations and races in which there is even now no act of legislation in respect to legal tender.

It must also be admitted that there is now no general act of legal tender which is or can be applied to international commerce, yet international commerce is conducted in terms of money, by the measure of price, and the balances of trade are settled by the passing over of coined money or its equivalent in bullion.

Lastly, it must be admitted that silver coin still performs the function of money in Great Britain and Germany, as well as in France, the United States, or in Asia, Africa, and South America.

In fact, if we compute transactions, bargains, sales by number rather than by amount, silver is even now the principal money metal of the world, circulating as money more freely, fully, and widely than gold.

Putting aside, then, the conception that either gold or silver can be demonetized by statute law, and reasoning upon the ground that bimetalism exists *de facto* in every continent and in every country, may we not bring the question of an international treaty for a common legal tender into a very simple form?

The question may be stated as follows:

(1) Is it expedient for manufacturing and commercial nations to enter into an agreement that all mints shall be open to the free coinage of both gold and silver?

(2) That coins made either of gold or silver at an agreed ratio of weight and fineness shall be a common or universal legal tender according to the weight of metal in them?

(3) Would such an agreement of legal tender reduce the variations in the rate of exchange between one country and another to the cost of moving coin or bullion, plus the cost, if any, of converting the coin of one country into that of another by re-minting?

(4) What would be the effect of such a treaty upon the future production of gold or silver, and what would be its effect upon outstanding obligations for the payment of money at a future date?

It is quite possible that many persons may be more capable of reasoning upon two subjects, by combining them, than the writer is; but it seems to him that monetary acts relating to coinage, the unit of value, and the like, belong to a very distant and separate department of law from acts of legal tender which relate only to the enforcement of contracts and the liquidation of deferred payments.

It is admitted, however, that the working of one class of acts may be greatly affected by the other, and that good money which will stand the test of fire may be driven out of circulation by depreciated coin or paper substitutes, when the latter are forced into circulation by an act of legal tender. Good money needs no force of law to assure its acceptance. It is only bad money that requires force.

One can often clear the mind of doubt or uncertainty by inventing hypothetical conditions.

Let us suppose that in place of two metals, one yellow and one white, there had been but one blue metal, equally attractive to the eye, equally fit for ornament, free from oxidation, ductile, and otherwise endowed with the same qualities, and yielded by nature in volume or quantity corresponding to the yield of gold and silver combined. Would not the money of the world have been coined from this blue metal? What place would there then have been for any battle of the standards, or for any act of legal tender, unless the weight or quality of the coin had been debased?

Is not the whole subject, therefore, narrowed down to a single issue: Can two kinds of coin, made of two separate metals, produced under different conditions and at varying cost, if cost be measured in terms of labor, be made one by statute for the purpose of discharging debts, the payment of which has been deferred, and will this statute use of coin for one of the functions of money lead to the customary use of such coin without distinction in all the other transactions in which money is passed from one person to another?

At present the world may be divided into three sections in respect to statutes of legal tender or of customs possessing the force of such acts. Prior to 1873 the single legal tender of gold was so limited, and the free coinage and full tender of gold was so nearly universal, that the ratio of 15½ of silver to 1 of gold had become almost everywhere established. The whole product of silver could then be converted into coin, and the price of bullion at about 60 pence per ounce in London had become merely an expression of that ratio. Whether this was a consequence of the free coinage or not need not be discussed, the price of silver varied but little, and the small variations were due to special causes.

In 1873 Germany called in its miscellaneous coinage, after a discussion which had continued for ten years, issued new coins of gold and silver, making gold the principal and silver the limited legal tender, and then put upon the market as bullion only that portion of the silver which must previously have been chiefly in the reserves of banks and bankers, or have been hoarded.

Germany drew gold from the ample stock of the world—there was enough and to spare, and no great stringency occurred—no sign of scarcity of gold appeared.

This mass of silver offered for sale by Germany came upon the market at a time when the annual product of silver was increasing, and it caused "a scare" very much like that which occurred when the much greater relative increase in the supply of gold caused a similar "scare" about gold. This sum, although small in ratio to the mass of silver in use, was yet a large sum to be disposed of within a limited period. Presently the members of the Latin Union felt compelled to cease the free coinage of silver; this aggravated the scare, and silver became distrusted and discredited.

But is it not an utter abuse of language to say that silver was "demonetized" either by Germany or the Latin Union by these acts? Is not silver money still in circulation in Germany, in Great Britain, in France, and are not the greater number of daily transactions liquidated, paid, or settled by passing silver money from hand to hand?

Nevertheless the action of Germany and France did cause silver bullion to depreciate in price in the financial centers and as a measure of international commerce. The States of Europe and the United States could not at once increase their consumption and import of the products of Asia, Africa, and South America, where the demand for silver remained constant and the pressure of the stock of silver bullion caused a reduction in its price at the commercial centers. To what extent such a change or depreciation has extended into the interior of the silver-using continents does not fully appear. The testimony is very conflicting, and it is very possible that the bullion price of silver will recover in the financial centers before the purchasing power of silver will have been greatly altered among the thousand million people to whom it is now, and must long remain, the principal money metal.

It may happen that the moderate rise and the hardening market for silver bullion already apparent are mere precursors of a yet greater rise, now that the stock of bullion held by Germany has been disposed of, and now that the increasing commerce of Asia, Africa, and South America is opening a greater demand for silver coin to meet its requirements.

Witness the recent purchase of silver bullion from Germany even by poor Egypt, in order to enable her coinage to be established. Witness the recent contract in Belgium for coinage for the Congo region. Witness the annual flow of millions of rupees from India into or through Burmah, whence they never return. Witness the movement of silver from France to Tonquin and the demands of Japan. These may be mere straws, but they may also be the beginnings of a change which may be guessed at, but can not be computed.

The world may be divided into two sections by population. The population of Europe, the United States, and Canada number about 400,000,000, but Russia must be set aside as in an intermediate stage. This leaves in round figures about 300,000,000

who may be designated as the machine-using nations, commonly called manufacturing, but who might be more fitly entitled the *mechanizing* people. Their several States are covered by a network of railroads; their banks and banking methods have been well developed; their law of contracts is well established; their margin of profit is very small, and their standard of full legal tender is now gold, the limited coinage of silver being maintained at par in gold.

Russia stands in an intermediate stage in the struggle to emerge from semi-barbarism; she has yet attained few of the advantages of what is called civilization, but has adopted some of the worst of its abuses, notably paper money. Her gold and silver product is, therefore, either hoarded or exported, and Russia may not therefore be counted an important factor in the present discussion, but may become one if she should realize the necessity of establishing specie payment, of which there are indications that her statesmen appreciate the importance.

In Asia, Africa, South and Central America, Mexico, and Polynesia we find a computed number of about 1,000,000,000 people to whom the modern factory system and the use of machinery or machine tools are almost wholly unknown, and among whom the construction of railways is just beginning to effect a revolution, the scope of which the imagination fails to grasp. Their commerce with the machine-using nations consists mainly in the exchange of crude materials or articles of food which require tropical or semi-tropical conditions, for the finished products of the factory or the workshop. One needs only to name tea, coffee, sugar, hemp, wool, spices, many kinds of ore and timber, indigo, dye-woods, and the like, in order to comprehend the nature of the traffic and the kind of manual labor which must be done in the production of these materials; it may be more or less skilled, but yet always manual labor aided by the crudest machines, in which kind of work low cost and low wages are synonymous terms. In this latter respect differing from the application of modern machinery, in the use of which low cost is compassed by the payment of high wages, both in rate and in purchasing power. The people of these continents know little of banking methods; credit is greatly restricted, but the volume of their transactions is vast. Their principal money metal—their standard of value—is silver.

Silver coin circulates by force of custom rather than by virtue of acts of legal tender, of which they would have little or no comprehension, and the great mass of silver now in existence is held by the people of these continents or countries.

Now, it happens, in consequence of the duties which are imposed by the United States, by Canada, and by most European countries, upon all or the greater portion of these crude materials or articles of food which constitute the exports of the non-manufacturing and silver-standard countries that the chief market for their products is in England. It is in London that their accounts are settled. London has become the banking center, because it is the trade center of the world, and, therefore, it is also the point to which silver bullion tends, in order that it may be exchanged for the products named. But it further happens that in London silver bullion is met by the competition of India Council bills, drawn in silver rupees, and forced upon the market in liquidation of the obligations of India, at stated periods, and at whatever price in gold the rupee will bring.

How much have the regular and forced sales of these India Council rupee bills tended to depress silver bullion in the London market?

I have been unable to come to any conclusion as to how much weight should be given to this notable fact, that the heavy loans negotiated in England on behalf of India began to affect the silver market in 1873, and subsequently down to the present time the sale of India Council bills has been about double what it was in an equal term of years prior to 1873; at one time almost stopping the flow of silver into India, and through India into Asia.

It is very well understood by business men that even when there may be no general excess of an article there may be a temporary excess at a given point.

Here we had in 1873, and for a few years after, an increasing flow of silver from the mines, and a considerable stream from the banks and hoards of Germany, all working into one spout in London, where it has been met at the little end by an obstruction of rupee bills forced on sale at stated periods. What else could have occurred except a local fall in price? The volume of imports from the silver-using countries could not increase at once, and, therefore, more silver was exchanged for what were needed.

It therefore seems to me that the "silver question," so called, cannot be determined until less attention is given to the bullion price in London and more attention is given to the present and prospective use of silver coin in other countries. Coupled with this the present and prospective supply of silver in ratio to gold must be taken into account; and, lastly, the effect, if any, of the cessation of the coinage of silver in Europe must be considered, and the establishment of the gold standard in Europe and the United States, upon the earnings and condition of the working people, who constitute the great mass of the population of all countries.

As soon as we enter upon this inquiry we are met by the fact that there has been no actual increase in the production of silver bullion since 1850, in ratio to the mass then assumed to have been in existence, in any measure corresponding to the increase of gold in ratio to the mass of gold previously produced.

According to the figures of the United States Mint, in which the world's product of silver is rated in standard dollars, the product of gold from—

1849 to 1884, inclusive, was	\$3,882,975,000
That of silver for the same period	2,250,375,000

But it is much more conclusive to make the comparison by weight, and for that purpose reference may be made to the graphical tables which accompany the last edition of Dr. Soetbeer's "Materialen."

His estimate of the production of gold is—

	Kilograms.
1493 to 1850, inclusive.	4,752,000
1851 to 1885, inclusive.	6,383,000

A proportion in the latter period over the former of a fraction over 134 per cent.

His estimate of the production of silver is—

	Kilograms.
1493 to 1850, inclusive.	149,826,000
1851 to 1885, inclusive.	57,564,000

A proportion in the latter over the former period of only 33½ per cent.

Admitting all the elements of uncertainty in respect to estimates of this kind, yet the facts which are known will justify these proportions as a basis of reasoning. It may also be remembered that the statistics of *production* are commonly accepted as being very near the mark.

The actual sales of silver bullion by Germany in six years, after 1873 to 1879, when her public sales ceased, amounted to 7,104,896,973 grams, or about 1½ per cent. on the product since 1850.

May we not infer that this sale, coupled with the increase in India bills and the increase of bullion produced, has had a local effect only on the London market, and that these influences may also be temporary?

Reference has been made to the fact that the greater part of the existing mass of silver is now in the silver-standard States and continents. If we assume this to be 80 per cent. of the production since 1493, less waste, we then find that even the entire annual product of silver bears a very small proportion to the whole mass.

Does it not then appear that, when we deduct the silver necessary for subsidiary coinage in the gold-standard countries and the great increase in the demand for silver plate, what remains could not have caused a general depreciation of silver such as appears to be warranted by the fall in the price of silver bullion in London from 60 pence to the present price of 44½ pence.

I am aware that this method of reasoning will be as incomprehensible to such of the advocates of bimetallism as impute the value even of coined money to statutes by which the coins are made legal tender, as their process of deriving value from statutes without reference to the ordinary considerations of supply, demand, and cost of production is incomprehensible to myself.

I think it is, therefore, not only courteous and justifiable, but absolutely necessary to try their processes of reasoning by the consideration which they give to facts which may be known.

In nearly all the treatises which I have read, the fall in the prices of the great staples of commerce and in all the necessities of life since 1873 is assumed to have been an evil. Disastrous results are imputed to it, and it again is imputed to the alleged "demonetization," or "outlawry," of silver. By some, but not all, of the writers of these treatises a scarcity of gold since 1873 is also assumed.

In one of the most recent and also historically valuable of these works, *The Silver Pound*, by Mr. S. Dana Horton, we are told that since 1873 the world has been subjected to certain influences of a malignant character by which prices have been forced down, trade has been depressed, land has been thrown out of cultivation, and various other evils have been incurred.

The writer says that "when prices are falling there is relatively less *movement*, less *production*, less *consumption*, less *success in business*; there is embarrassment and idleness; there is a prolonged crisis, or what we familiarly call hard times."

He then asks, "What is the cause of this fall in prices since 1873?" and he replies: "Evidently the anti-silver laws of the Western nations are the *primary*, the *efficient*, and the *removable* cause."

We are not only told that we have "demonetized," but that we have "outlawed," silver.

If this diagnosis is wholly incorrect, it would not be good practice to adopt a heroic remedy for a non-existent disease. What are the facts?

We may take the experience of the United States, as perhaps the best example; because since 1865 the country has not been disturbed by active war, or by the yet more onerous conditions of the passive war under which most European states are now struggling.

The general fall in prices in the United States began earlier, has been much greater, and has continued longer than anywhere else, because we have been subjected to the admitted appreciation of our paper currency from a depreciation of more than 50 per cent. to par in gold, as well as to the alleged appreciation of gold itself.

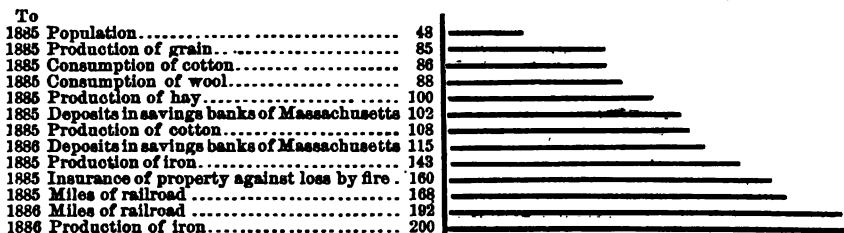
Has there been "less movement, less production, less consumption?"

So far from this diagnosis being a true one it may be safely alleged that never in history has there been such a record of increase in the production or consumption of all the necessaries of life, or such active and increased movement in all commodities.

I will not take 1865 as a starting-point, but rather 1870, when we had surmounted the greatest dangers of paper inflation, and were fairly headed towards the resumption of specie payment, which was accomplished in 1879.

Between 1870 and 1885 or 1886, the relative increase in population, in production, in consumption, and in some forms of wealth, has been as follows:

Gain in population, production, wealth, and savings, 1870 to 1885, and on some items to 1886.



In considering these relative gains, it will be observed that they represent a constant gain in the means of subsistence over population; that with the exception of the increase in personal wealth, which is indicated by the increase in the amount of property insured against loss by fire, they represent the progress of the million in the means of common welfare rather than of the millionaire in personal wealth, and that they give testimony to the beneficent law of progress from poverty.

The same rule has held true, not only in respect to the necessities of life, but also as to its comforts and luxuries, and while fully admitting that we have grave problems of "progress and poverty" to deal with, yet the rule has been "progress from poverty." The mass of the people who constitute the "working classes," in the limited sense in which the so-called "labor reformers" choose to separate them from those who are not wage-earners, have been securing to their own use and enjoyment a constantly increasing share or proportion of a steadily increasing product.

As it has been with production and consumption, so has it been with movement, the third factor cited.

Never in the history of the world has there been such an increase in the actual movement, such activity, such shortening of the time, or such reduction in the cost, as that which has been accomplished by the consolidation of the railway systems of the United States, which was begun by Vanderbilt in 1869, and by the extension of the service since that date. It has also been on the most successful, prosperous, and profitable lines that the increase of movement or traffic and the reduction in the charges have been greatest.

We were enabled to resume specie payment by the possibility of exchanging our surplus of grain and meat for the specie which we needed, by the reduction in the railway charge for moving these products, and by that only. This reduction has occurred, not by conveying wheat at less than cost, but by economy in the work. It is permanent and not temporary, because it pays a profit.

Bear in mind that as yet not much over 300,000 square miles of our domain, out of 3,000,000, is now under the plow, and that up to this time our chief source of supply of grain, beef, and pork, is more than 1,000 miles from the seaboard—bear in mind also that since 1865 we have constructed over 100,000 miles of railway, by which, taking a strip of land only 5 miles wide on each side, 1,000,000 square miles, 640,000,000 acres have been brought within 5 miles or less of a railway—you will then have some conception of what I myself believe to have been the great price-making factor in this generation, to wit, the railway and the steamship.

If such results as I have pictured in the United States have ensued from what has been misnamed the "outlawry of silver," and if these results are wholly due to the adherence to the gold standard of legal tender, the act of outlawry might well be justified. In such case it might surely be judicious to maintain the edict. But it would be as unsuitable to impute the actual progress which we have made to changes of policy in respect to silver as it is to impute poverty and distress thereto.

Wages are now as high in gold in the United States as they were in the period of paper-money inflation, and their purchasing power has increased from 66 to 108 per cent., according to the kind and quality of the work done. Common laborers can buy 66 per cent. more of the necessities of life with the earnings of one day's work than in 1865; factory operatives of all kinds, men and women, can buy 78 per cent. more; good mechanics can buy 90 per cent. more; and men of special skill and aptitude, over 100 per cent. more.

This vast progress in the condition of the people of the United States has been accomplished during the period when the money of the nation has been appreciating, or since it attained the stability of the gold standard, and while prices have been steadily falling.

There have been short periods when the work of a considerable number, especially of common laborers, has not been continuous. These periods have corresponded closely with the construction of new railroads. In 1882 we built 11,500 miles, in 1884 less than 4,000. The difference corresponds to one year's work of nearly 500,000 men. This year we shall probably construct 12,000 miles, and all the men who were idle can now find work.

Who can wonder that in a term of less than twenty years—in which distance has been lost in a fraction of a cent a ton a mile, in which time has almost ceased to be a factor in computing cost, and in which the whole world has been converted into a close neighborhood, in which each man could serve his neighbor if he only would—that profits should have varied and been greatly reduced; that there should have been hard times for the owners of capital, hard times for the owners of property, especially in land, who could not adjust themselves at once to the new conditions, as well as hard times for the common laborer, whose customary work has been displaced by machinery? All these are but incidents in progress, more marked in the period when progress is most rapid. They are a part of the penalty of invention.

Both statistics and observation tend to prove similar progress in Great Britain, perhaps not in equal measure, because you have burdens to bear from which we are free.

Germany has also gained since her money was recoined in 1873, when the gold standard was established, and when her present coined money, consisting in part of gold and in part of silver, was substituted for 17 varieties of gold money, 66 different silver pieces, and 46 kinds of notes issued by 35 different banks, besides a considerable amount and variety of state paper money.* But whether this gain has more than counterbalanced the increasing burden of taxation and the increasing drain of her military system is a matter of doubt.

Whether France and Italy can continue to bear the military system and to support armies which seem to be as impossible to be disbanded as they are incapable of being sustained without national bankruptcy, are problems for the future to solve, perhaps at no very distant day.

But, compared to these beneficent forces which make for abundance, and these maleficent forces which waste this abundance, what weight should be given to changes in the acts of legal tender, or to the adoption of one metal as the unit of value rather than the alternate or option of two metals?

Having thus brought the question into definite terms on the basis of facts, it may well be admitted that the depreciation of silver at the financial centers, and the "dislocation" of the exchanges, as it has been called, between the gold-standard and the silver-standard nations, is a grave misfortune, and one that requires a remedy, if a remedy can be found. I think the low price of silver bullion is due to a prolonged scare or undue discredit, which is not warranted by facts, and that the remedy will come when there is a true comprehension of what bimetalism really is, and a true understanding of what may be accomplished by acts of legal tender.

If the proposition can be sustained that bimetalism exists *de facto*, and that gold and silver have been adopted as money metals by a process of natural selection, and not through the evolution of statute law, then it follows that both will survive as money metals, in spite of changes in the statutes of legal tender.

But the important consideration is that acts of legal tender may alter the distribution of the two metals, and, in the adjustment to the new conditions which are brought into force by such acts, great changes may be worked for a time in the ratio of one to the other.

A certain proportion of each year's product of gold and silver will pass into the world's stock of money in one place or another, without much regard to statutes,

* See report of H. B. M. Consul Strachey, March, 1887.

but more of the gold may go where gold is the single legal tender, and more of the silver may go where silver is the necessary money metal.

What proportion of the present product of gold or silver is used in the arts, how much is used for bangles or other ornaments, how much is used in gilding the domes or towers of the temples of Asia, how much is hoarded, may perhaps be surmised, but can not be accurately computed. Suffice it that the greater part has been, and will continue to be, coined into money.

If, then, the long continuance of certain acts of legal tender had caused the two metals to be distributed in one way, it follows that important changes in such statutes and an important cessation of coinage may have worked a certain change in such distribution.

Is not this what occurred in 1873, and subsequently?

If these changes in acts of legal tender have only altered the distribution of the two metals without affecting their use as money metals in any important measure, we are led to the most important branch of the question, to wit: Which metal is most likely to be in the quickest demand for coinage into money in the next ten or twenty years, silver or gold? Of which is there most likely to be a relative scarcity, silver or gold? Which is most likely to rise in the ratio to the other, silver or gold? Assuming that no important change is made in the existing statutes in that term.

If I were to suggest that it would possibly and even probably be silver, you might be startled. Let us again look at the facts and see what they indicate.

The existing dread of an "avalanche of silver," or of an excessive product in the North American continent, there is now reason to believe to be without foundation. Having been greatly misled myself on this point when I first began to study this question, I am now the more anxious to remove this fear; but, not expecting to meet it here at this late day, I am not as well supplied with evidence as I hope to be soon.

I am, however, permitted to quote from a recent letter of Dr. T. Sterry Hunt, who is here with us.

He says: "So far as Canada is concerned, the Silver Islet mine gave, perhaps, \$3,000,000 in all, and has been abandoned. Since 1872, when I visited the famous silver mines of the north shore of Lake Superior, the cry has been periodically raised that they were of fabulous value, but not one has yet been worked.

"As to our own western region, you know that the great Comstock lode is now exhausted, or nearly so. I was last May in Tombstone, Ariz., a famous seat of silver production for many years—now at a stand-still. Along the line of the Sonora Railroad, from Benson to Nogales, there are two or three large silver mills which I saw lying idle for want of use. Do not mistake me; there are still, and will long be, rich silver-producing camps. * * * There is, and there will be, for a long time, a large and healthy mining industry, and much silver and gold will be produced; but from all I have seen and heard, *I think that the excessive silver production is a thing of the past.*" (The italics are my own.)

This statement of Dr. Hunt's corresponds with all the impressions which I have received in recent years, and will probably be sustained by the testimony of other experts, which will be taken.*

You will observe how very different this is from the vague talk of producing silver at a shilling to 20 pence per ounce, such as I find in many places. If any such production were possible, surely the silver would come as freely at 44 pence as at a higher price.

May it not then be held that there has been no overproduction of silver, and that there cannot be, unless all mints are closed against silver coinage, and at the same time all nations, civilized, semi-civilized, or barbarous, unite in such a distrust of the white metal as to be no longer willing to use it. Is not this an absurdity, an almost unthinkable proposition? If such are the facts of the past and the conditions of the present, may not the present depression in the price of silver bullion in London be a mere passing incident in the adjustment of the two money metals to the new conditions of distribution which were brought into force by the acts of Germany and the Latin Union in 1873?

* Since writing the foregoing I have been permitted to read the paper prepared by Mr. William Topley, F. G. S., for this meeting, upon the probable future production of gold and silver, and I observe that in respect to silver he has reached the conclusion that any considerable increase on the present product will depend mainly upon an advance in the present price of bullion.

From what is now known of the conditions of mining in the United States, I have reached the conclusion that it would probably require a large advance in price to develop any considerable increase of silver. If upon further investigation such should not appear to be the fact, and an increasing product at a lower cost without corresponding increase of demand should appear to be in view, the theory that a higher value and price can be forced by an act of international legal tender will be received with yet more hesitation than it is now.

Even the disposition of the admittedly large product of silver in the face of conditions adverse to its price since 1873 may be cited to sustain this view.

For thirteen years prior to 1873, inclusive, the world's production of silver, measured in dollars of 412½ grains each, was, in round figures, \$700,000,000.

In 1873 it is said to have been "demonetized," "outlawed," or "boycotted."

In thirteen years, since 1873, the product has been over \$1,300,000,000.

The coinage of "Bland" dollars, so called in the United States, has taken up but little more than Germany sold, so that nearly this entire product has been put into the market. What wonder that when the conditions of trade threw most of this product upon the London market, where it met the increasing competition of India bills, the price should have fallen so that the gold value of this bullion may not have been much over a thousand million dollars.

But even that sum would be called, in the United States, "a pretty big pile." What has become of it? Has the so-called "demonetization" of silver, and the adoption of a single legal tender on a gold basis by about one-sixth or one-seventh part of the population of the globe, made the whole world so prosperous that this whole big pile has been converted into plate or bangles? If such is the fact, perhaps the less discussion about "remonetization" the better. But the very idea is absurd; the increasing commerce of the silver-using continents has required more coined money made of silver, and will soon call for yet more. The action of France and Germany has not altered the volume of coined money, but has merely changed its distribution. The balance may be nearly adjusted.*

Again, since 1873 has there been any sign of a scarcity of gold anywhere? Has not gold filled the small channels from which silver had been displaced, without any appreciable effect upon the vast stock which has been added since 1850? Are there not ample and sufficient causes for the fall in prices of all the necessities of life without the need of imagining a scarcity of gold? Had this fall in the price of the products of labor been due to a scarcity of gold, would not the price of the labor itself have been reduced? Has not the reduction in prices been most beneficent when accompanied by a steady rise in the rate or in the purchasing power of the wages?

"Of what consequence is it what happens to the millionaire so long as the million prosper?"

*GENERAL SURVEY OF THE PRODUCTION OF GOLD AND SILVER IN THE YEARS 1493-1885, AS CORRECTED BY DR. ADOLF SOETBEER IN THE 2D EDITION OF HIS MATERIALIEN, OCTOBER, 1886.

Period.	Weight.			
	Gold, annual average.	Silver, annual average.	Percentage.	
			Gold.	Silver.
	Kilograms.	Kilograms.	Per cent.	Per cent.
1493-1520.....	5,800	47,000	11.0	89.0
1521-1544.....	7,160	90,200	7.4	92.6
1545-1560.....	8,510	311,600	2.7	97.3
1561-1580.....	6,640	299,500	2.2	97.8
1581-1600.....	7,380	418,900	1.7	98.3
1601-1620.....	8,520	422,900	2.0	98.0
1621-1640.....	8,300	893,600	2.1	97.9
1641-1660.....	8,770	866,300	2.3	97.7
1661-1680.....	9,260	837,000	2.7	97.3
1681-1700.....	10,765	841,900	3.1	96.9
1701-1720.....	12,620	355,000	3.5	96.5
1721-1740.....	19,060	431,200	4.2	95.8
1741-1760.....	24,610	533,145	4.4	95.6
1761-1780.....	20,705	652,740	3.1	96.9
1781-1800.....	17,790	879,060	2.0	98.0
1801-1810.....	17,778	894,150	1.9	98.1
1811-1820.....	11,445	540,770	2.1	97.9
1821-1830.....	14,216	460,560	3.0	97.0
1831-1840.....	20,289	506,450	3.8	96.2
1841-1850.....	54,759	780,415	6.6	93.4
1851-1855.....	179,888	888,115	18.4	81.6
1856-1860.....	201,750	904,940	18.2	81.8
1861-1865.....	185,057	1,101,150	14.4	85.6
1866-1870.....	195,026	1,839,085	12.7	87.3
1871-1875.....	173,904	1,969,425	8.1	91.9
1876-1880.....	172,414	2,450,252	6.6	93.4
1881-1885.....	149,127	2,861,700	5.0	95.0

Production of Gold and Silver, 1886.—J. P. KIMBALL, *Director U. S. Mint.*

May it not be held that the same forces which have brought into existence this huge modern abundance of products—which have made the whole world a neighborhood, and which have given new and wide opportunities for commerce among men—have not only worked economy in the use of gold, but have also created a new and increasing demand for silver?

The railroad, the telegraph, the steamship, the Suez Canal, and the improvement in the methods of banking have all tended to great economy in the use of gold. Have not these same forces, by increasing the number and the aggregate of small transactions and widening commerce, also greatly increased the use of silver coin? If not, again I ask, What has become of the silver?

When we consider the vast changes, in fact, the *social revolution*, which has been brought about by the railroad and the steamship in what are called civilized countries in the last fifteen or twenty years by the mere improvement and extension of the system already established, may we not predicate a yet more profound change in the condition of society in Asia, Africa, South and Central America, as the railway opens India and Turkestan, passes across the Andes, regenerates Mexico, develops the vast temperate and fertile region of the Paraguay and Parana? Yet more when the Chinese wall gives way, when the Euphrates is paralleled, and when the Trans-Siberian Railway is completed, and eighty days become too long for a trip around the world?

Will not the commerce of the people on these new lines be vastly increased? Will not their commerce with other nations be greatly extended? What money will they use? What coin must they adopt? Must it not be silver? Then in what measure will the present product of silver suffice to meet the increasing demand?

If silver is not and cannot be demonetized, and if gold can be yet more economized, what will be the relative conditions of supply and demand, and what will be the ratio of one metal to the other ten or twenty years from this time? Who can tell?

It follows from the course of reasoning which I have presented, provided it can be sustained, that the principal effect of the action of Germany and the Latin Union since 1873 has been to throw the exchanges between the gold-standard and the silver-standard nations into great confusion, involving expense and loss to large numbers of persons, and for a time affecting the prices of imports and exports in some small measure.

It seems to me, however, utterly untenable to allege that the depreciation of the rupee, in the exchange between India and Great Britain, has worked an equivalent bounty on Indian wheat exported. Had such been the case, there could have been no such fall in the price of silver bullion in London, but the excessive profit on the India traffic would have caused instant competition to secure bullion for remittance. I believe the India merchants who have testified before the royal commission have disproved this fallacy.

In order that true consideration should be given to the effect of the competition of India wheat, under the alleged stimulus of the depreciation of the rupee in London, while it is said to have retained substantially its full value to the grower in India, an analysis should be made of the change in the condition in American competition since 1870 to 1873, by which the wheat grown in America on a distinctly appreciating currency from 1870 to 1879, and since then on a gold basis, has held its place as the prime factor in the supply of Great Britain, and still holds it while the imports from India are diminishing.

The first consideration is to be given to the reduction in the railway charge for moving produce from Chicago to the sea-board, a little less than 1,000 miles. This reduction has been on the average traffic a little more than 1 cent per ton per mile, comparing the rates of 1870 to 1873, inclusive, with those of 1883 to 1886, inclusive. A very large portion of the wheat crop of the United States is grown in Minnesota, Dakota, Kansas, and other places, 500 miles or more west of Chicago, and it is the wheat from these new lands which makes the price. West of Chicago the extension of the railway system, the construction of elevators all over the country and other improvements, have made a yet greater reduction in the cost of handling and moving wheat since 1873. If, then, we assume that the charge for moving wheat 1,500 miles has been reduced only three-quarters of a cent a ton per mile, or only 75 per cent. of the actual average east of Chicago, we get a saving on one ton of 33½ bushels of 60 pounds each of 33½ cents per bushel; or, at 8 bushels to the quarter, \$2.70. Disregarding fractions this item only is 11 shillings per quarter. In the same period the cost of moving grain from New York or Boston to Liverpool has been reduced one-half or more, say 2 shillings, per quarter. Add these two sums to 34 shillings, a price in Mark Lane at which the supply of India wheat is checked while that from America continues, and we have 47 shillings. But this is but a part of the change which has enabled the wheat or flour of the United States to be laid down in Great Britain at so low a price. See note at end of Appendix A.

Improvements in the machinery of agriculture have enabled farmers to increase the grain crop since 1870 35 per cent. in excess of the increase in population, with no relative gain in the number of persons devoted to agriculture. In the same

period an equal if not a greater gain has been made in the process of milling. The wages of farm laborers have risen, but proportionately less in number are required to do the work, while the interest which the farmer now pays on money borrowed on mortgage has been reduced nearly one-half.

Taking all these changes into view, I think it is safe to say that 34 shillings per quarter in Mark Lane is as sure to maintain the import of American wheat in increasing volume as 60 shillings in 1870 to 1873 was sure to do so; and, if I am correctly informed, the import of India wheat will be likely to diminish at this price.

I think it must therefore be admitted that if the depreciation of the rupee in London has for a short time stimulated the export of wheat from India, it can not long be depended upon; therefore, the pending issue on the silver question may not be much longer obscured by this side issue. If it is important to English agriculture to raise the price of bread, some other way must be found than to change the present monetary system, either of Great Britain or India.

In all the many analyses which I have made to determine the causes of the fall in the prices of the necessities of life, I find similar causes working to the beneficial result of lower cost, lower price, and better conditions or higher wages to those who perform the actual labor.

Nevertheless this great variation and fluctuation in the rate of exchange is an evil, and if it can be removed by an international agreement for a common legal tender of either gold or silver at a fixed ratio the effort to establish such a treaty is worth all the attention which is given to it; and to that end I have endeavored to bring the question, What is bimetallicism?

It seems to me that this question may be at last resolved into two or three very simple propositions already stated.

Will a treaty of legal tender among the principal commercial and manufacturing nations to the effect that either silver or gold coin of given weight and fineness, at a ratio of 15½ to 1, or any other agreed ratio, serve to bind the two metals into one mass as a standard of deferred payments, and do away with the variations of exchange in current international trade?

Or, in other words, bimetallicism existing *de facto*, and the new distribution of the metals worked by the acts of 1873 being completed, will a uniform act of legal tender, enforcing the acceptance of either metal by creditors in liquidation of debts, cause such two metals to maintain the agreed ratio to each other in all transactions, whether cash or on credit?

If such results can be attained, then the chief purpose of those who are now called bimetallicists may be admitted to be scientifically possible, even by those who cannot accept the arguments or statements upon which they now base their somewhat imperative demands.

If, however, such results may not be attained by statute, then the ratio of silver to gold will establish itself hereafter as it has heretofore, according to the circumstances and conditions of the times, and neither statutes nor treaty will have any permanent effect, whatever temporary fluctuation or variation they may cause.

It is very easy to conceive that commerce would go on by the measure of price, and with the use of coined money as an instrument of exchange, if all acts of legal tender were repealed. In such event all coins would become what I believe the silver taels of China are—mere weights of metal—and all contracts could be enforced at law in the weight of the metal promised, as the rents of a certain great water-power in Massachusetts have been enforced in so many pennyweights of silver, these leases having been executed about thirty years since, when the same "scarc" prevailed about gold which now prevails about silver.

Under such conditions, *i. e.*, in the absence of any acts of legal tender, gold and silver would attain a certain ratio to each other, according to the emission of the metals by nature and the cost of production covering centuries of the work of man.

The varying cost of one year, or of one generation, might have little effect on this ratio, because the product is not like that of other articles which must be consumed in order that they may be reproduced; but each year's product is an accretion to the pre-existing mass accumulated through the centuries.

It must be admitted, however, that acts of legal tender have become an integral part of the law of contracts—they now vary among nations.

Will a uniform act of legal tender assure stability in the ratio of silver to gold? Are there any known facts from which an answer can be deduced?

What effect on the future production of either gold or silver such an act or treaty would have for a time may perhaps be answered only in Yankee fashion by asking another question.

Had the "scarc" about gold between 1850 and 1860 closed the mints of Germany and the Latin Union to gold, and limited the full legal tender of these nations and of the United States to silver coin, with the free coinage of gold maintained only in Great Britain, what would have been the effect on the ratio of gold to silver since then in commercial countries?

In this treatise my whole attempt has been to clear away misconception, and to define the issue, while at the same time presenting considerations which seem to me most important, but which do not yet appear to have received much attention.

It would not be within the scope and purpose of this paper for me to give any review of the present state of opinion on this subject in this country, on the Continent, or in the United States at this time.

I have been obliged to prepare this treatise in the short intervals of a hasty and busy journey; this must be my excuse for the lack of concentration.

INTERLAKEN, August 15, 1887.

ADDENDA.

While this treatise was passing through the press, I have had the opportunity to give a partial review to the testimony which has been presented to the Royal Commission. I find in it abundant evidence sustaining the positions which I have taken, to wit:

(1) The mass of gold in existence has been sufficient to enable Germany to adopt the gold standard of legal tender, the United States and Italy to resume specie payment substantially on a gold standard, the Latin Union to cease silver coinage and to maintain their existing stock of legal-tender silver coin at par in gold, without creating any apparent scarcity of gold, and without any special influence in depressing the prices of commodities or services.

(2) The reduction in the price of commodities has been no greater than would be warranted by and might have been expected from the improvements in the processes of production and distribution. This reduction, having been accompanied by a general maintenance or rise in the price or rate of wages, has been almost wholly beneficial, temporary hardship to special classes being admitted.

(3) The changes which have been worked by the action of Germany and the Latin Union in 1873, and subsequently, have caused a local and probably temporary depreciation of silver and not an appreciation of gold.

(4) The "dislocation of the exchanges," as it has been called, between the gold legal-tender and the silver-standard nations has been injurious to certain classes, notably to those who have had occasion to make cash remittances from silver to gold-standard countries. This variation in exchange has also tended to make the export traffic from the gold-standard or manufacturing nations more complex, and has subjected it to a little increased cost in bankers' charges, but has not altered the volume of traffic. It may perhaps have given a slight and temporary stimulus to the export of wheat and other products from India and other silver-standard nations, whether to their ultimate benefit or injury does not yet appear, as the subject is only treated in the testimony with reference to the production of these countries and not with reference to their consumption.

(5) The testimony is fairly concurrent and conclusive that silver has not yet depreciated to any measurable extent among the great populations to whom it is the principal money metal, as well as one of the principal subjects of accumulation as realized wealth.

(6) In the fact that silver has thus maintained its value in the domestic commerce of the greater part of the population of the globe, in the face of an addition to the volume of metal in thirteen years since 1873, equivalent to over 1,300,000,000 dollars of 412½ grains each, 90 per cent. fine, it follows that the depreciation of silver must have been limited to the financial centers, the coinage of the United States having only taken up an amount of bullion equal to that disused by Germany and other States of Europe.

(7) This great additional volume of silver bullion, having been forced through one spout in London, has been there compressed or locally reduced in value, because it could not accumulate; after it has passed through this spout it has been expanded and merged in the great mass of silver possessed by the silver-using continents, and has had so little effect as not to have yet caused an appreciable advance in prices or wages in these silver-using countries.

(8) It may be assumed that the silver coined by the United States up to this time, now represented dollar for dollar, in silver certificates, will be required in the present circulation to make up for the contraction in bank notes or United States notes, and that its convertibility into gold coin will surely be maintained. If, then, the depreciation of silver in the financial centers is substantially limited to such centers, it follows that the price of silver bullion must recover until it becomes equal to the mass of silver in use in silver-standard countries in its purchasing power; but at what ratio of silver to gold this equilibrium will be re-established does not yet appear.

(9) In order to restore this equilibrium it may be necessary or expedient for the gold-standard, or manufacturing nations to remove the duties on the crude materials or articles of food which are the chief product of silver-using nations, in order that the consumption of these products may be increased, and a direct exchange for silver for them may be established.

(10) Even if it were admitted that the policy which is advocated under the name of a "Bimetallic Treaty" among nations, had it been adopted, or had the free coinage of silver continued as it was before 1873 in Germany and the Latin Union, would have prevented the great depression in the price of bullion in London, it does not yet appear that even such conditions would have assured absolute stability in that price or ratio.

The argument for a bimetallic treaty, therefore, rests for its support not so much on experience as on the conception of those who urge its adoption, that the value, force, or purchasing power of money is derived from one of the provisions of the modern law of contracts, and that it is necessary to the circulation and use of coined money that it shall be legal tender for deferred payments.

(11) If the consideration of the question be too strictly limited to the discussion of this theory, and but little attention be given to the facts, it may happen that the restoration of silver to its proper estimation may be retarded, and the evils now due to depression may be longer continued than would be the case if less importance were attributed to monetary legislation and more weight were given to the higher laws governing value and controlling commerce, to which all statutes must be adjusted if they are to have any permanent effect or duration.

(12) While there is no immediate prospect of the negotiation of a "bimetallic treaty," the subject is beginning to assume its true importance, and its discussion cannot fail to lead to many measures of improvement, not only in respect to international coinage and legal tender, but perhaps to weights and measures.

LONDON, August 25, 1887.

Note to page 24 :

In order that the importance of railways as a factor in prices, especially of farm products, may be fully comprehended, I append the following tables which I prepared in January of the present year for another purpose. I requested Mr. Henry V. Poor, editor of the Railway Manual, to give me the particulars of the traffic of the great trunk lines of railroad from 1865 to date, year by year. There are six which enter Chicago, and there are twenty-one which in combinations connect Chicago with the eastern sea-board. These twenty-seven trunk lines did about half the work of the country last year. The reduction in their charge for this service between the years 1865 to 1888, inclusive, averaged, and their charge in the year 1885, was 1½ cents per ton per mile, which, being computed on the actual traffic of the year 1885, proved that the traffic of last year cost \$800,000,000 less than it would have cost at what were considered reasonable rates twenty years ago.

The actual saving of the last four years, 1882 to 1885, inclusive, as compared with the previous period, has been \$1,500,000,000. There are about 1,700 other lines of railroad which, separately or in groups, do the rest of the work, mostly that of distribution, or what may be called the crossway traffic. Their rates are now a little higher than on the through lines; they were a great deal higher twenty years ago. The saving of the last four years on all the railroads of the country, as compared to what the work would have cost twenty years ago, has been \$750,000,000 a year, or \$3,000,000,000 in all. This reduction in the railway charge for carrying food, fuel, fibers, and fabrics about the country is equal to 7 per cent. reduction in cost to consumers on the entire product of everything made in the United States in each year. The sum of money thus saved in four years, applied at the rate of \$30,000 per mile, would have paid for the construction of 100,000 miles of new railway, which have been added to our service between January 1, 1865, and January, 1887. The entire area of land which is now under the plow in the United States, omitting that devoted to pasturage, is a little over 300,000 square miles.

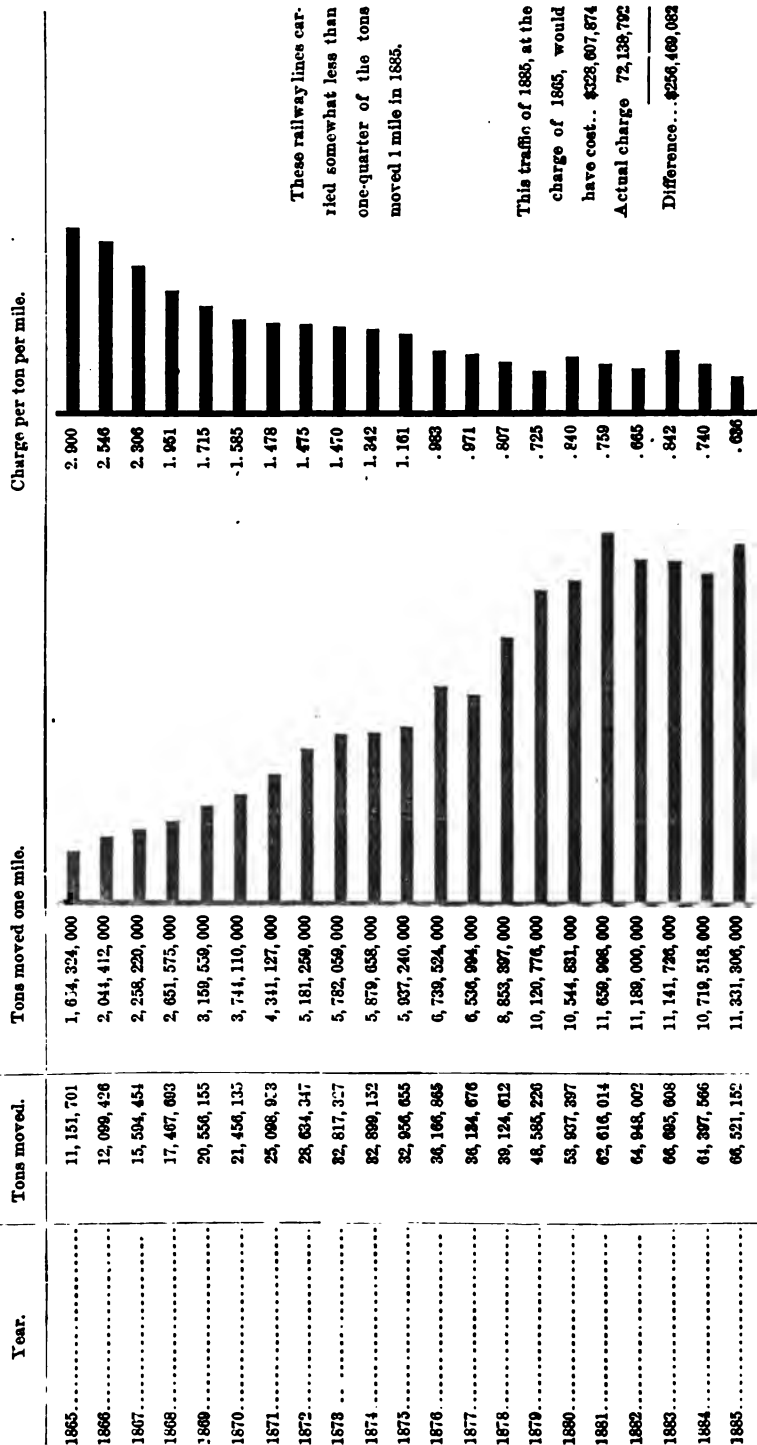
The new lines of railway, covering 100,000 linear miles, have opened a strip of land 5 miles on each side, amounting to 1,000,000 square miles. It therefore follows that in twenty-two years an area of land three times that which is under the plow has been brought within less than 5 miles of a railroad as to every acre. This is one-third of the territory of the United States, omitting Alaska. The effect of this great reduction in railway charge, especially on the long haul, has enabled the country to dispose of its excess of wheat, corn, meat, and dairy products which it could not have consumed, and which, except they had been exported, would have either rotted upon the field or else could not have been produced. In the year 1880 (no computations since) at least 17 per cent. of that part of the population which is engaged in agriculture found their market exclusively in a foreign country. Their number was at least 1,380,000 men out of the 8,000,000 occupied directly in agriculture or in moving

the products of agriculture to the sea-board. The average excess of imports over and above exports in this country was \$100,000,000 a year, from 1866 to 1873, inclusive. The import and export traffic of 1874 and 1875 balanced each other.

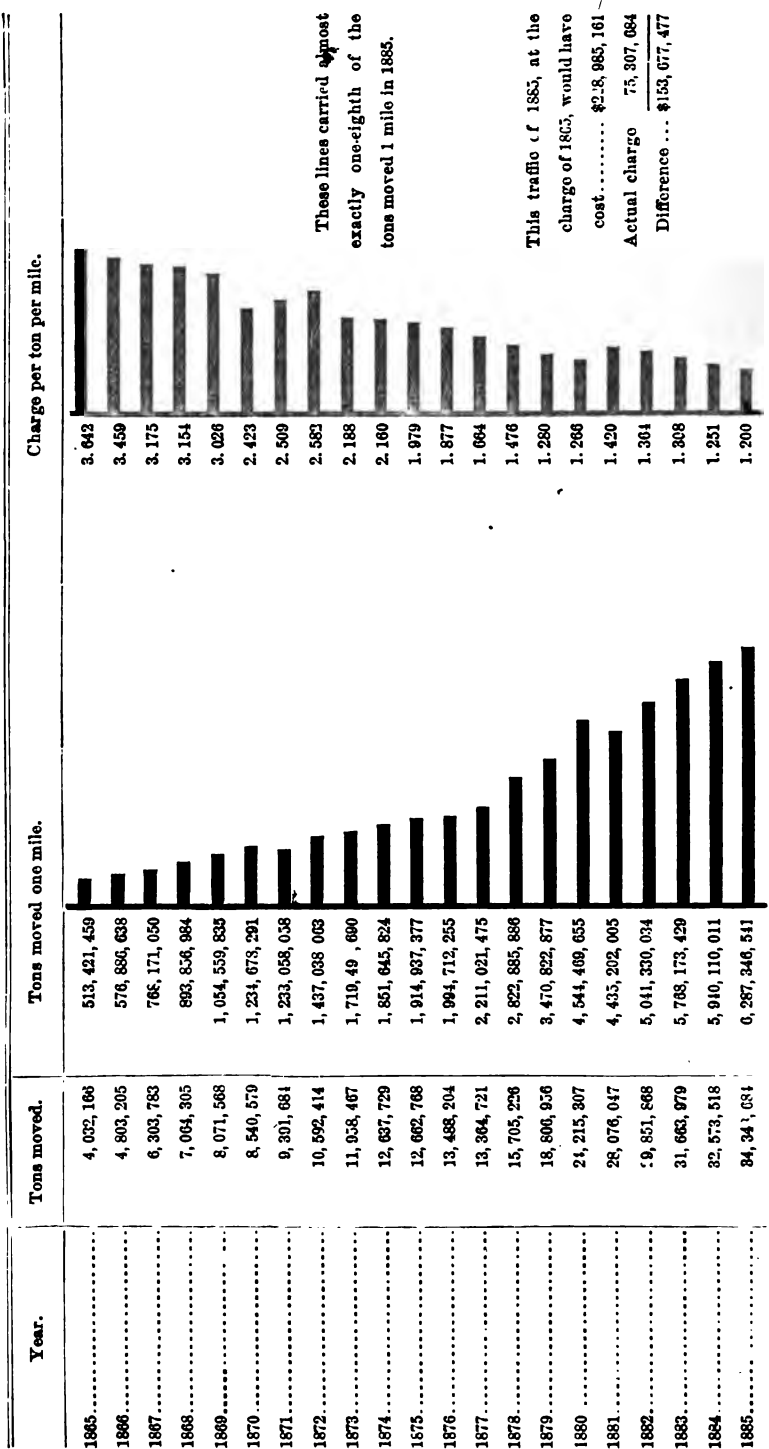
In the year 1876, for the first time, the average freight charge on the roads connecting Chicago with the sea-board was reduced from 2½ cents a ton a mile in 1866 to less than 1 cent per ton per mile. The average of the ten years, 1876 to 1885, has been eight-tenths of a cent per ton per mile. It is this cheap transportation which has enabled us to export in the years 1876 to 1885, inclusive, nearly \$1,600,000,000 worth of product in excess of our import; this excess has consisted wholly of grain and provisions. Without this export specie payment could not have been resumed, nor could the industry of the country have gone on in its accustomed way. The whole traffic of all the railways of the United States is now over 50,000,000,000 tons moved one mile every year.

THE FOOD PROVIDERS.

Pennsylvania, Pittsburg, Fort Wayne and Chicago, New York Central and Hudson River Railroad, Lake Shore and Michigan Southern, Michigan Central, Boston and Albany, New York, Lake Erie and Western Railroads. (Graphically compiled by Edward Atkinson, from a pamphlet by Henry V. Poor.



Illinois Central, Chicago and Alton, Chicago and Rock Island, Chicago, Burlington and Quincy, Chicago and Northwestern, and the Milwaukee and St. Paul railroads.



A graphical statement showing the effect of the reduction in the charge for moving provisions long distances at the lowest possible rates, in enabling farmers to sell grain and meat for export which could not otherwise have been sold at all, thereby bringing about the restoration of specie payments. The balance of exports over imports for ten years has consisted wholly of farm products.

Year.	Exports.	Excess of ex- ports.	Railroad charge per ton per mile. To Chicago. From Chicago.	Excess of im- ports.	Imports.	Year.
1886....	\$348, 559, 922		Cents. 3. 459 2. 546	\$85, 952, 544	\$434, 812, 066	1886
1887....	294, 506, 141		3. 175 2. 306	101, 254, 955	395, 761, 096	1887
1888....	281, 952, 809		3. 154 1. 951	75, 483, 541	357, 436, 440	1888
1889....	286, 117, 697		3. 026 1. 715	131, 388, 682	417, 506, 379	1889
1890....	392, 771, 768		2. 423 1. 585	43, 186, 640	435, 958, 408	1890
1891....	442, 820, 178		2. 509 1. 478	77, 403, 506	520, 223, 684	1891
1892....	444, 177, 586		2. 582 1. 475	182, 417, 491	626, 595, 077	1892
1893....	522, 479, 922		2. 188 1. 470	119, 056, 288	642, 186, 210	1893
1894....	586, 283, 040	\$18, 876, 698	2. 160 1. 342		567, 406, 342	1894
1895....	513, 442, 711		1. 979 1. 161	19, 562, 725	532, 005, 436	1895
1896....	540, 324, 671	79, 642, 481	1. 877 .983		460, 741, 190	1896
1897....	602, 475, 220	151, 152, 094	1. 604 .971		451, 822, 126	1897
1898....	601, 985, 763	257, 814, 221	1. 476 .807		497, 051, 582	1898
1899....	710, 439, 441	264, 661, 606	1. 280 .725		445, 777, 775	1899
1900....	835, 633, 658	167, 658, 912	1. 206 .840		667, 954, 746	1900
1901....	902, 377, 346	259, 712, 718	1. 420 .759		642, 664, 628	1901
1902....	750, 542, 257	35, 907, 083	1. 364 .665		714, 639, 574	1902
1903....	823, 830, 402	100, 658, 488	1. 308 .843		723, 180, 914	1903
1904....	740, 313, 009	72, 815, 916	1. 251 .740		667, 697, 093	1904
1905....	742, 189, 755	184, 662, 426	1. 200 .636		557, 527, 829	1905

Merchandise traffic of all the railways of the United States in 1885; authority, Poor's Railway Manual, 1886:

Tons moved.....	437,040,099
Tons moved 1 mile.....	49,151,894,469
Charge for service.....	\$519,690,992
Rate per ton per mile.....cents..	1.057

Twenty-seven trunk lines which, separately or in combination, center in Chicago from the West or connect Chicago with the eastern seaboard:

Tons moved.....	185,320,709
Tons moved 1 mile.....	25,125,076,247
Charge for service.....	\$219,872,732
Rate per ton per mile.....cents..	.875

All other lines:

Tons moved.....	251,719,390
Tons moved 1 mile.....	24,026,818,222
Charge for service.....	\$299,818,260
Rate per ton per mile.....cents..	1.248

Measure of this service per head of population and per family:

Lines.	Tons per person per year.	Distance hauled.	Charge per person.	Charge per family of five persons.
		Miles.		
Twenty-seven trunk lines.....	3.252	136	\$3.68	\$18.40
All others.....	4.420	95½	5.26	26.30
Total.....	7.672	111½ Average.	\$8.94	\$44.70

The average charge per ton per mile on the 27 trunk lines in the years 1865 to 1885, inclusive, exceeded that of 1885 by 1.635 cents. At this rate of excess, applied to the whole traffic of the United States, all other lines having made a greater reduction, so far as the data can be had, the sum saved in the year 1885 was \$903,633,477.

The whole service of all the railroads in 1885 consisted in moving 42 pounds a day of food, fuel, fibers, and fabrics, a distance of 111½ miles for each man, woman, and child of the population, or 1,470 pounds a week for a family of five. The average charge to each person was a fraction under 2½ cents per day, or 87½ cents per week for each family of five.

The 27 trunk lines treated in the foregoing tables perform about one-half the freight service of the United States. The average charge per ton per mile on those lines, 1866 to 1873, inclusive, was.....

1874 to 1885.....	2.315 cents per ton.
	1.196

Difference.....1.119
Had the actual traffic of those lines from 1874 to 1885 been charged the difference, the amount of such additional charge would have been over.....

	\$1,756,000,000
The excess of exports over imports in this same period was.....	\$1,574,021,528

APPENDIX B.

The following very instructive paper, read by Prof. H. B. Greven, of Leiden, Holland, is submitted, both as an interesting chapter in monetary history, but also to show how a very large volume of silver coin may be maintained at par in gold, *after the suspension of silver coinage*, provided its redemption is assured in gold coin by a national agency authorized thereto by legislation.

In my investigations in Europe I found that one of the causes of the discredit of silver was the fear of the accumulation of silver coin in the Treasury of the United States becoming greater than the country would bear, the manner in which it is now utilized by the issue of silver certificates not being comprehended in countries where small notes are not known or in circulation. I am very confident that if the fear in Europe of an "avalanche of silver" from the United States were removed, the increasing demand for silver might soon allay the present doubt of the value of silver bullion and that the price might consequently advance. In such event, the free coinage of silver would have a much fairer chance of consideration.

E. A.

NOTE ON THE MONETARY SYSTEM OF THE NETHERLANDS.

[Paper read by Prof. H. B. Greven, of Leiden, before the economic section of the British Association at Manchester, on Wednesday, September 7, 1887.]

Our monetary history since 1873 presents some very interesting features. Until that date we had the single silver standard. Owing to the changes in Germany and the countries in the north of Europe, who had passed over to the single gold standard, the coinage of silver was suspended in the spring of 1873, and since that time we have been in a very curious position for two years. Silver could be no longer brought to the mint, and gold coin could not be issued, because Parliament could not agree on the weight to be given to the gold piece and rejected all proposals for introducing a gold standard. We possessed a fixed quantity of silver coins, and their value was regulated neither by the variations of gold in the market nor by those of silver. In fact, the value of our florin was quite independent of any metal, and depended only on supply and demand. Now, the demand for coin was increasing in the years 1873 to 1875, and the result was that while silver as a *metal* was going down in the market our silver *coins* were appreciated as against gold. The rate of exchange on London, which oscillates now on the gold basis between 12.1 and 12.3 florins for a pound sterling, shrank to 11.12 florins. We could not possibly remain in that unnatural position, and so in 1875 a gold piece was issued, coined at the ratio of 15½ parts of silver against 1 of gold. Since that time our monetary system can be described, in the words of Mr. Cernuschi, as that of the "*étalon double boiteux*," the double standard, but crippled in so far as the coinage of silver is forbidden. The value of the florin solely depends on the variations of gold, but the coins in circulation are most of them tokens. They are legal tender for all payments. A silver florin cannot possibly be of less value than that of one-tenth part of the gold 10-florin piece, but their intrinsic value is 15 to 20 per cent. less.

Thus the only way of extending the specie circulation is the coining of gold. Some £6,000,000 of gold coin have been issued since 1875, but we were not sure to keep them in the country. Our position, indeed, had considerable dangers. When the balance of international payments required export of specie, the gold coin only could be used for that purpose without loss. Should the bankers have sold our silver florins in the London market they should have lost the difference between the intrinsic value and the mint value.

Now, for some years after the introduction of gold coinage all went well. The Netherlands bank was always willing to pay its bank notes in gold when the gold was needed for export, but it was very difficult to get any gold for circulation in the

country itself. It was a wise policy, this. The silver specie served its purpose there equally well, and, our stock of gold being very small in comparison to the whole of the specie, we ought to keep as much of it as possible ready for foreign demand. (I say equally well, because the silver pieces did not circulate in greater number than the public required, and fully covered bank notes were used for payments of greater amount.) The danger of this to our monetary situation appeared in the years 1881 and 1882. The balance of trade turned against us, and the stock of gold ran down to some £600,000, while the silver specie, whose value was appreciated artificially, consisted of about £30,000,000, when we bring into account also the silver in the colonies. Unless some remedial measure was taken, the confidence that payment in Dutch florins was payment in gold would have been lost, and in a short time the gold coins would have sold for more than their nominal value. In other words, there was great danger of an agio of gold, and it ought to be prevented at all cost. The question was, how to effect that result with as little cost as possible. Of course we could have melted down a part of our silver coins, and so diminished the circulation and brought the rates of exchange below the exportation point. Government was prepared to bear the loss on the operation, but only when it was absolutely necessary. An act was passed in April, 1884, which gave powers to the Chancellor of the Exchequer for authorizing the bank to sell at market prices a quantity of 25,000,000 silver florins when the state of the currency requires it. Since then every banker knows that when he needs gold for export, and the bank cannot pay in gold, it will give him so much silver as will enable him to buy a quantity of gold equal in value to so many gold coins as the notes offered for payment represent. In that manner confidence was entirely restored. Nobody now has the least doubt that an agio of gold has become impossible.

This legislative measure has cost us nothing at all to this day, as rates have all along been favorable to our country, and the bank has been able to secure a stock of gold, amounting in the preceding months to about £5,000,000. Thus, without any cost to the treasury, we have been able to maintain our currency on the gold basis ever since 1875. And I wish to add that we have done it without any serious disturbance in the bank rate. It can no doubt be maintained that the rates have been somewhat higher than they ought to have been if our currency had consisted only of gold. The directors of the bank can not consider the silver in their vaults as a basis of the emission of bank notes in just the same way as they do consider the stock of gold. Perhaps even at a lower rate of interest the nominal value in florins of their specie and bullion would have been quite sufficient for their own safety. But, as they wished to pay in gold for export any quantity asked for, this consideration has come in in their decision concerning the rates. Still industry and commerce did not complain of this state of affairs. They did not consider it too high a cost for the maintenance of our currency system, and I think you Englishmen will agree with them when I tell you that the rate of interest on bills, $2\frac{1}{2}$ per cent., has now been absolutely constant since May, 1885, for a period of more than two years. This compares favorably, it seems, with the numerous alterations in the rate of the Bank of England.

Now I propose to add a few words about the monetary relations of our colonies with the mother country, a subject that will specially interest you, because of the very serious disturbances in your trade with India since the beginning of what is usually called the depreciation of silver, and would in my opinion be more truly called the appreciation of gold. I can not deny that we met with difficulties also, but they were of quite another character. Your Indian mints have been open for silver all the time. Holland, on the contrary, has adopted the gold standard for the colonies since 1877. You have a different standard in Europe and in India, we have got the same. Our Indian florin is a *gold* florin. Indian prices are gold prices. Gold does not circulate at all in Java, indeed there is scarcely any gold in the colonies, and still all these silver florins have the same buying power as so many pieces of gold, containing each one-tenth of our 10-florin gold piece; that is to say, their value is about 20 per cent. above the intrinsic value. So great is the power acts of parliament have on the value of coins, supposed only that the supply of them is limited. You will understand, from what I just said, that by the unity of the standard in the kingdom in Europe and in our Indian domain we escape all the difficulties arising from great and sudden variations in the rate of exchange that gives you so much trouble. The exchange is always at or about par, just as rates between London and Edinburgh or New York and New Orleans. Our difficulties arise from another cause. Your exports from India have been stimulated; our export trade from Java has been impeded. The producers of coffee, sugar, and other tropical products sell their goods in the European market for a diminished price, while many of the elements of their cost of production, and the burden on their estates and manufactories, in so far as they are working with borrowed capital, remain the same, or at any rate do not go down as soon as the prices of the produce. Their margin of profits has disappeared in many cases, they have not been able to repay in due time the working capital they had borrowed from the financial companies, and some of them had to be

wound up. But all those difficulties, very real and serious as they are, do result in the last resort from the decrease of prices, in other words from the appreciation of gold, and most of the competent men in our colonies are agreed that we ought to bear them rather than to break the unity of currency over the whole of our European and Indian territory.

These are the main features of our monetary history for the last fifteen years. Our situation is far from satisfactory, it is in the highest degree artificial, and we are constantly on the watch for making such changes as will make the intrinsic value of all our legal-tender coins to correspond to the mint value. How that will be effected will entirely depend on the course of the international negotiations, now pending for many years, for the adoption of a common standard of value. So long as there is any hope that the great commercial nations will come to an agreement for steadying the ratio of exchange between the precious metals—whatever that ratio may be—and for using them both all over the world, there is no reason for changing our present system. But should the case for silver become hopeless, we should be amongst the first to exchange our silver for gold at whatever cost, although we would deplore such a change very much, for the manifold evils arising from a further appreciation of gold and for the irregularities and the injustice that would result from it in the distribution of wealth.

APPENDIX C.

Reference has been made in the text of this report to certain influences which have worked to the discredit of silver in the European market, and which may therefore have in part at least caused a local depression in the price of silver bullion.

The first of these causes has been uncertainty in respect to the production of silver, especially on the North American continent, and to the vague and indefinite dread of an excessive production at a cost much lower than the ruling price of the last few years.

The subsequent letters from geologists of acknowledged standing and reputation will give such information as to the prospective supply of silver bullion and the relative supply as compared to gold, as it is now in the power of science to furnish.

The second influence adverse to confidence in silver, and tending to continue the local depression in its price, seems to have been a general conviction on the part of men of high financial standing and ability that the people of the United States would ere long be convinced that a continued coinage of dollars of the present standard, at a ratio of silver to gold in itself inconsistent with the coinage of any other country, and itself tending to an undervaluation or depreciation of silver as compared to the former standard prevailing in Europe, would ultimately bring the United States to the single silver standard of legal tender, or to what would be called *monometallism* on a depreciated silver basis. It is further believed that when this conviction has become general and the disaster which might ensue had become apparent, it might happen that the United States would suddenly change its policy, stop the coinage of silver, and, in order to maintain the convertibility of all its money into gold on demand, an effort might then be made to dispose of its accumulated stock of standard dollars of the present coinage, as bullion.

As I have previously stated, the use of small notes, convertible into coin on demand, or in the form of certificates sustained by coin, dollar for dollar, is so foreign to the common practice of most European countries, especially England, as to have yet attracted little attention to the real state of facts in the United States.

In nearly all the discussions of the question which have come to my notice it has been assumed that the standard dollars of the present coinage of the United States were almost all piled up in the Treasury—useless and incapable of being circulated because the people would not accept the actual dollars. As this conception of our condition is entirely erroneous, it is important that the fact should be brought into conspicuous notice that the coinage of dollars of the present standard, although it has created a barrier even to the consideration of a bimetallic treaty on the part of European countries, yet it has not impaired the immediate convertibility, directly or indirectly, of the whole currency of the United States into gold coin on demand.

The coin and paper which serve the purposes of money in the United States at the present time consist of seven varieties.

(1) Gold coin of full legal tender computed at	\$573, 415, 740
(2) Silver dollars of full legal tender	273, 658, 320
(3) Subsidiary silver coin, of limited legal tender	75, 398, 925
(4) Notes of the United States, commonly known as greenbacks, of full legal tender	346, 681, 016
(5) Bank-notes, issued by national banks and secured by the deposit of United States interest-bearing bonds, convertible into legal-tender money on demand	272, 893, 850
(6) Gold certificates, representing coin or bullion, dollar for dollar, convertible on demand	127, 138, 971
(7) Silver certificates, convertible into silver dollars of full legal tender on demand	158, 274, 667

The volume of this currency of all sorts, October 1, 1887, was distributed as follows:

Amounts of gold and silver coins and certificates, United States notes, and national-bank notes in circulation October 1, 1887.

	General stock coined or issued.	In Treasury.	Amount in circulation.
Gold coin	\$573, 415, 740	\$182, 324, 850	\$391, 090, 890
Standard silver dollars	273, 638, 320	213, 043, 796	60, 614, 524
Subsidiary silver	75, 398, 925	24, 984, 219	50, 414, 706
Gold certificates	127, 138, 971	29, 154, 288	97, 984, 683
Silver certificates	158, 274, 667	3, 919, 841	154, 354, 826
United States notes	344, 681, 016	17, 610, 212	329, 070, 804
National-bank notes	272, 893, 850	2, 938, 593	269, 955, 257
Total	\$1, 827, 461, 489	\$473, 975, 799	\$1, 353, 485, 690

It will be observed that the tendency of events is toward a contraction of the paper currency which is not covered by coin. The high price of the United States bonds, which must of necessity be deposited as security for national-bank note circulation, is leading to the surrender of this privilege by the banks, and to a diminution of that form of currency. The surplus revenue of the United States may also tend to accumulate in the Treasury Department in the form of legal-tender notes or in gold coin. If this should occur it would diminish either the amount of legal-tender notes in circulation, or else would back them in full, dollar for dollar, in gold coin, so that they may become simply the counterpart of gold and silver certificates.

This contraction of uncovered paper currency appears to have been met during the past twelve months by a need of a greater volume of another kind for actual use in the form either of coin or of notes. Hence it has occurred that the silver certificates paid out by the Treasury Department have remained in circulation, to the end that while the coinage of silver dollars up to this date has amounted to \$275, 222, 157, there remained in the Treasury on the 20th of October only \$55, 094, 880 which were not in use. The actual dollars in circulation amounted to the sum of \$61, 847, 064, and the amount of silver certificates in circulation amounted to the sum of \$153, 280, 213.

These silver certificates are receivable for taxes the same as gold or coin; but the silver certificates being issued in small sums, and being much more convenient than the coin itself, remain in circulation to a large extent, while the taxes are mainly paid in coin or in gold certificates. So long, therefore, as the coinage of silver dollars is strictly limited, and so long as the demand of the country for small note circulation continues as at present, there is and can be no difficulty in maintaining the convertibility of the silver coin or certificates into gold coin on demand.

These conditions may prove that no danger should be anticipated by the financial authorities of any other country of any attempt on the part of this country to dispose of the silver yet coined by sale in the form of bullion. The ultimate danger that the country may come to monometallism on the standard of depreciated silver coin must be admitted, if the coinage is continued under the present acts of Congress for a sufficient period.

At the present time the standard dollars serve the same purpose as the subsidiary coin, or as the basis for the issue of small notes sustained in full by subsidiary coin.

If the two causes of distrust and of doubt which have been named could be wholly removed from the minds of European financiers, the price of silver bullion might then be established at whatever its true ratio to gold may be, without being adversely affected by misplaced apprehension of much lower prices or by erroneous impressions of the financial condition of the United States.

I beg to submit herewith the replies to my letters of inquiry so far as I have been able to obtain them. Several gentlemen whom I addressed are either absent or too much occupied to give attention to the subject within the limited time. The names and position of those who have complied with my request will be sufficient warranty for the accuracy of their statements. My letters of inquiry were addressed to men of approved position and authority, without any previous knowledge on my part of the testimony which they would give. Their replies may furnish a sounder and safer basis for a decision upon the expediency of stopping the coinage of the present standard dollar until other nations have determined upon their policy than any other statements which it is in my power to give in this report.

Respectfully submitted.

EDWARD ATKINSON.

LETTER FROM PROF. N. S. SHALER, GEOLOGIST U. S. GEOLOGICAL SURVEY.

HARVARD UNIVERSITY,
Cambridge, October 31, 1887.

DEAR SIR: A few years ago I made a somewhat extended study of the geological conditions of our silver and gold supplies, with the view of determining the probable future production of these metals under the existing conditions of the arts involved in winning them to man's use. At your request, I give below a brief synopsis of my results. Within the limits which you have assigned for my writing it will not be possible for me to do more than state the facts as they appeared to me. To give in detail the data on which I have based these judgments would require a considerable volume. I may say that these considerations were quite uninfluenced by any theoretical views concerning the monetary relations of these metals, for on those points I have no right to an opinion, having never given any extended study to the subject.

My inquiry into the geological problems connected with these metals naturally divided itself into two heads: First, the geographical distribution of the sources of supply as determined by the distribution of the geological deposits which contain them; and, secondly, the mode of occurrence of the substances, the way in which they are disposed in deposits where they are found, and their association with other metals. I regret that it is not possible within the limited time given for the preparation of this statement to bring the data into the form of a map. I have a great part of the material necessary for such a delineation, but it would require a good deal of time to give it a final form.

First, as regards the distribution of gold, we have to note that, although this metal is one which, owing to its indestructibility, is very widely disseminated in the deposits of all ages, the fields where it is sufficiently abundant to afford profitable mines are relatively inconsiderable in area. Gold occurs in either of two conditions: in veins, where the metal has been aggregated by the peculiar processes which lead to such deposition, and in detrital deposits, composed of the waste of such veins, as in the gravels and sands contained in the beds of streams which flow from regions where gold-bearing veins occur, and in the sands of the sea-shore which have been derived from such streams or from the waste of cliffs containing auriferous deposits.

Although gold-bearing veins have been found in relatively modern strata, they are in the main limited to the highly crystalline rocks lying below the Devonian horizon. By far the greater part of such deposits occur in rocks of Cambrian or Archæan age. Considering only those portions of the earth's surface which have been carefully searched for mineral deposits, we find the area which contains lode gold in sufficient quantities to repay search to amount to somewhere between one-twentieth and one-fortieth of the whole field of the dry land. From the regions where gold-bearing lodes occur the process of erosion has distributed, through the machinery of the streams, the detrital gold in such a manner as to extend the field of possible mining operation until it occupies somewhere near one-twentieth of the total land area. It is hardly necessary to say that in these areas the actual seat of the profitable deposits occupies a relatively small part of the field.

The effect of the twofold mode of occurrence of gold upon the production of the metal is extremely important. That which is contained in lodes has to be slowly won, for the reason that access to such deposits must be had along the exposed edge of the lode by the ordinary mining processes. The deposits contained in detrital gravels, provided these be of recent origin, as are most of the detrital gold deposits now worked, are much easier of access than in the case of the lodes. Access to them may be had at an indefinite number of points, and the superficial material which has to be removed is generally small in quantity. The result is that a newly discovered gold field commonly yields its alluvial store of metal with exceeding rapidity, as in the well-known instance of the California gold-washings. After the stream deposits have been exhausted may come the slower and more costly production from the lodes which by their decay supplied the washings. In certain cases, where circumstances favored the thick accumulation of gravel deposits, we may have for a considerable time the washing process continued by the well-known hydraulic method; but so far the area in which such operations can be carried on with profit appears to be very limited.

Gold occurs in lodes either in association with other valuable metals or alone. The greater part of the lode-gold occurs alone or in association with metals which are not reckoned upon in estimating the cost of production. In certain important groups of mines it is associated with silver. In other cases, along with silver, it is associated with lead, and in yet other instances with less important metals, which are won at the same time with the more precious material.

It is, in a general way at least, true that gold differs from silver in that it has to be mined for itself alone; while, as we shall note hereafter, silver most commonly occurs in combination with other valuable metals. Deposits containing gold alone generally occur in the form of gold-bearing quartz, in which gold exists in an uncombined

form or associated with pyrites. Although those quartz veins which bear gold are often very continuous, the area containing profitable amounts of the metal is commonly limited to particular parts of the vein, occurring in the form of *shutes* or *chimneys*. In general, it may be said that the distribution of the precious metal is such as to make the production extremely inconstant.

The result of the above noted division in the distribution of gold is to make the seats of its production more variable and temporary than that of any other metal which has attained an important place in our arts. This point is well shown by the fact that, although the mines which furnished silver, iron, tin, lead, copper, and other metals in the Roman period and during the Middle Ages are still in many instances extensively worked, none of the fields which afforded gold in those periods are now the seat of considerable production. In fact, I cannot recall an instance in which a gold-bearing field extensively wrought during the last century is now an important source of gold supply.

We have now to consider the probability of new discoveries which may lead to the development of unknown gold fields. The fact that gold remains in the streams as a residuum arising from the erosion of the rocks containing auriferous lodes, makes it extremely easy to discover deposits of this nature. It is safe to say that not a stream bed in the United States, in regions where the existence of gold can be suspected, has escaped the study of the prospector. A few hours' work with a miner's pan will adequately determine the chance of finding important deposits of gold in the region whence the stream drains. It may therefore be assumed that, in a general way, we know the auriferous districts of the United States. Local discoveries of particular lodes may be made; but here again the extremely careful search to which the country has been subjected makes it improbable that any fields comparable to those which have been found within the last fifty years will be brought to light. The same may be said of Europe and Western Asia. Even the central and eastern portions of Asia have long been the seat of sufficient civilization to have their possibilities of gold supply in a measure known. It seems to me doubtful if the Asiatic field ever affords extensive areas whence may come supplies of gold comparable to those of Australia and California. The greater portion of South America which is likely to contain gold has also been the seat of very careful search for this metal. Patagonia and the eastern versant of the Andes remain essentially unexplored, but it does not seem likely from the little we know of the geology of these districts that extensive gold deposits will be discovered there.

Those parts of Australia which have a character as regards climate and water supply, fitting them for the needs of the miner, appear on the whole to have been tolerably well explored. The recent extensive discoveries in that country seem to indicate, however, that we may still look to it for the supply of this metal. In North America there remains a considerable area in Alaska and in the northern part of the Dominion of Canada, beyond the limits of settlements, where we may reasonably expect to find considerable gold fields. The conditions of climate in a large part of this region are against the success of all forms of washing, and it is therefore to the lodes alone that we must look for any important supply which this region may afford. Africa is the only continent where we may fairly expect to discover important and as yet untouched fields of gold supply. The little we know concerning the structure of the continent leads us to suppose that it may prove auriferous beyond the average of land areas. The recent discoveries in the southern portion of the continent give great promise of extensive production from that part of the world.

Thus as regards the future possible sources whence low-cost gold may be obtained, we may sum up the facts as follows: By far the greater portion of the gold-bearing rocks of the land areas have already been subjected to careful search. The greater portion of the conveniently winnable alluvial deposits of the land areas have already been exhausted, and probably a larger part of the rich auriferous lodes discovered. In my own opinion quite three-fourths of the possible sources of supply are now tolerably well known, and a greater part of them either exhausted or so far explored that we may not look to them for any sudden accession of supply. With the present rate of advance of civilization on barbarism, it seems safe to say that in fifty years we shall have compassed the resources of gold which are likely to be profitable in the present or foreseeable extension of our mining arts. Each subsequent discovery is likely to give a temporary increase in the store of gold from the winning of the superficial gold-bearing detritus, followed, perhaps, by a long-continued production from the lode deposits. When this work of exploration is done and all the fields known, a continuous supply will depend on the complicated equations between advancing arts of applying power and the demand for the precious metal.

It does not seem possible that the metallurgical art, as applied to the winning of gold, can be carried much further than it is at present. Some diminution in the cost of production will doubtless occur from inventions and discoveries yet to be made, but the recent history of the arts involved in winning gold appears to indicate that we have attained very nearly to the ultimate point of economy in the treatment of

auriferous ores. The recent discoveries in the application of electrical energy enables us to foresee that within a short time wind power, by the intervention of storage batteries, may enable us to work mines in situations where the difficulties of obtaining fuel are such that mining is now impossible; but this line of invention can only apply to certain small parts of the earth's surface which are destitute of fuel. The facts on which I have founded the above-noted statements lead me to the following conclusions: First, that gold is more likely to become an article of increased cost within the coming half century than any other metal. That is measured in the terms of day's labor, it is likely, each decade, to cost more than any other metal which is now the object of extensive search, except it may be tin. When once the alluvial deposits have been exhausted and the richer mines have been worked to the depth where the difficulties arising from internal heat and the incursion of water are considerable, the cost measured in terms of labor will rapidly increase. Individually, I am of the opinion that measured in terms of labor the gold won during the past decade has cost more than that produced in any of the preceding four decades of this century, though I have no great confidence in my judgment on this point.

DISTRIBUTION OF SILVER ORES.

Owing to the fact that it does not readily combine with other elements, gold, despite its weight, has been widely disseminated in the rocks. Silver being far more oxidizable, has a much more limited distribution over the surface of the earth. It is also less commonly found in profitable quantities, at least in original lodes, than in the case of gold. Thus, while the eastern part of the United States has probably produced in the aggregate more than \$31,000,000 in gold, the total amount of silver which it has contributed to the markets of the world is certainly less than a million dollars. Owing to the readiness with which it is oxidized, silver is never found, at least in important quantities, in detrital deposits derived from the ablation of lodes containing that metal. The total area of the earth which has contributed gold to our markets is probably twice as great as that which afforded silver in commercial quantities.

During the past ten years no new and important sources of silver supply have been developed. Many new lodes have been discovered, but these have all been in fields where there had already been reason to suspect the existence of such deposits. On the other hand, silver-producing deposits appear to have a continuity not found in the case of gold-bearing veins. Thus there are many mines, as, for instance, those of Saxony, which have produced silver for several centuries and still maintain their supply.

In part the greater continuity in the production characteristic of silver mines as compared with those of gold may be accounted for by the fact that the ores of silver are generally associated with those of lead and copper, metals which are accumulated in deposits of considerable thickness and mass. Probably more than one-half of the silver production which has been contributed to the world's market during the last century has been afforded from mines where the metal has been found associated with lead or other substances, which have in part repaid the miner for his labor. This association of silver with other valuable materials, making it in some cases a by-product and in others a more important element in the result obtained by the miner's labor, tends, in a way which is readily understood, to increase the production of the substance and also to keep that production in a less variable position than in the case of gold.

The larger part of the gold now accessible to the miner is contained in gravels and must be won by sluicing or hydraulic mining. Experience in California and elsewhere shows that the processes of winning this alluvial gold leads to the destruction of the regimen of the rivers into which it is discharged, to the complete ruin of the area which is searched for the metal and also to the injury of a wide field of agricultural land in the regions adjacent to the streams into which the debris is discharged. It is not too much to say that each dollar of gold which is won by hydraulic processes, when they are carried on in a large manner, necessarily brings about several dollars' worth of damages to the interests of men in the time to come. So grievous has been this damage to the immediate interests of the agriculturists that in California it has appeared necessary to prevent hydraulic mining by legislative enactment. There are probably areas on the earth's surface containing deposits of alluvial gold where the hydraulic process may be carried on without the sacrifice of extensive tracts suited to agriculture, but they remain to be discovered. It seems to me that if the purchasing power of gold should be considerably enhanced by a diminution of the supply, this damage which comes from working alluvial deposits may become in time an important matter; at any rate, it deserves to be considered by economists.

By far the richest field in silver mines known in the world is included within the limits of the Cordilleran system, or great mountain chains which border the western shore of the American continents. The most important increments in silver pro-

duction which have taken place in modern times have been due to the contributions from this field. First came the influx of silver from the Andean division of this system. This South American product in time diminished as the mines from which it came were worked out or carried to a depth where further production was made impossible by difficulties encountered in deep mining. For a considerable period the Mexican mines had an important share in the production of silver. They, too, gradually lost their importance. About thirty years ago, access to the portion of the Cordilleran range which lies within the United States led to a great increase in the supply of this metal. The largest production was from the Comstock lode, a deposit which now appears, despite the very costly explorations, to be essentially exhausted. Long continued and careful search of the Rocky Mountain district and of the region on the west of that field has revealed a number of important silver deposits, which have contributed largely to the world's supply.

So careful and thorough-going has been the search for silver ores in the section of the Cordilleras which lies within the United States that we may assume that we have discovered all the large deposits of this metal which lie within that field. Although many lodes of economic importance have there been found, it is important to know that in no case within the last ten years have very extensive or highly productive veins been discovered. There doubtless remain scores of these deposits sufficiently rich for working, but it is highly improbable that we have yet to discover any sources of supply to be compared in importance with those of the Comstock lode or of Leadville. The Rocky Mountain district, owing to the character of its surface, is peculiarly well fitted to favor the work of the prospector. The covering of soil is thin and thus the character of the bed rock and its mineral contents is readily revealed. In my judgment this district has no great surprise in the way of silver production to afford the world.

What we know of the distribution of silver in other countries leads me to the conclusion that no other field for the supply of this metal, comparable to that of the Cordilleras, awaits discovery. The Indo-European chain, extending from the Pyrenees to eastern Asia, evidently is not rich in silver ores. It is, indeed, the least metalliferous of our great mountain systems. There is no evident reason to look to the central parts of Asia for large silver supplies. Australia has not shown any signs of affording a large production of this metal. Africa, so far as known, does not promise to prove argentiferous, though we know as yet too little of the mineral resources to have a decided opinion on this point.

It is to the unexplored portions of North and South America that we turn for the most of our expectations as to the future increase in the production of silver. The eastern parts of these continents are not likely to yield large amounts of this metal, for the reason that despite the extensive search for mineral wealth to which they have been subjected, no important sources of supply of silver have been discovered. There are, however, considerable fields of the Cordilleran system which have not yet been explored by prospectors. In the United States, Mexico, Peru, and the greater part of Chili the search for these deposits has been long continued, careful and much favored by the character of the surface. We may, therefore, assume that in this section of the system, which includes nearly three-fourths of its area, there are few deposits of great importance which await discovery. The extreme southern portion of the system, that which lies in Southern Chili and Patagonia, is essentially unexplored. So, too, the section north of the United States is to a large extent unknown as regards its mineral resources. These two unexplored regions include perhaps one-fourth of the Cordilleran system. There are reasons, which I cannot here discuss, which lead us to the opinion that these unexplored fields are likely to show fewer important silver deposits than those areas in the Cordilleran field which have been the seat of mining industries; but even if we assume that equally large deposits exist in those regions, the total production which they may afford is not likely to be very great.

There is an important question concerning the future product of the Cordilleran silver-bearing fields in Mexico and South America to which we must now turn our attention. The mines which were worked in these countries in the three centuries preceding our own were generally abandoned on account of the depth to which their workings had penetrated. Modern speculators have assumed that the introduction of better mining machinery might again bring about a great production from these abandoned mines of Peru and of Mexico. Many experiments in reopening these ancient mines have proved unfortunate. The reasons for these misadventures are easily seen. While the modern machinery and methods of mine working have certain great economical advantages over the ancient processes, the cost of labor has so far increased with the development of civilization and of commerce in these regions that it more than offsets the advantages of improved mechanical appliances. These mines were in the main worked under a system of peonage or slavery, at a time in the world's history when the cost of labor in Europe, as compared with that in South America and Mexico, was greater than at present. Although the method of working followed in the Mexican and Peruvian mines was rude, it enabled the managers to win the richer por-

tion of the lodes, leaving only the poorer for the modern explorer. Moreover, the physical difficulties attendant upon the reopening of ancient mines, difficulties arising from the bad condition of the worked ground, are often very serious. In my opinion, no great increase in the supply of silver is to be apprehended from the reworking of these abandoned mines.

There remains the question whether the incidental production of silver obtained from the working of lead, zinc, and copper ores is likely in the future to be an important element of supply. At present, as before remarked, the production of silver from mines in which the lead or other base metal is a large element of the profit is considerable. It seems likely that in the time to come the production of silver found in combination with other valuable metals will be more important that it is at present. At present, the lead produced in silver mining affords a large part of the return from the mines which produce the metal. So extensive is this contribution of lead from silver-bearing ores that a greater part of the mines of lead which do not produce at the same time a considerable amount of the more precious metal have been abandoned. In other words, lead is now mainly produced as a valuable by-product in the mining of silver. If lead should increase in price it would diminish the cost of producing silver.

It does not appear to me likely that the demand for lead will rapidly increase in the time to come. This metal, which was at one time extensively used for a great variety of purposes, is now in the main used for small projectiles and for making paint. Its use for pipes has gradually diminished; iron and other metals have taken its place. The diminution in the price of copper has also tended to displace it in the market. Moreover, the price of lead has of late been singularly steadfast, though the average market value exhibits a great diminution within twenty years. I am inclined to think that the consumption of this metal is likely to diminish rather than increase in the time to come, and that we may not look to any increase in the silver production dependent on an enhancement of the value of this associated metal. The silver obtained in copper mining is less considerable in quantity than that which is won from lead mines. Furthermore, where this metal is combined with copper in intimate mixture, as it generally is, separation is attended by peculiar difficulties, which make it unlikely that we shall see in the time to come any considerable increase of silver from this source of supply.

My survey of the silver problem from a geological and geographical point of view has led me to the conclusion that this metal is likely to be produced in rather less quantities during the remainder of this century than during the last twenty years, and furthermore, that in the nineteenth century, saving for unforeseeable improvements in mining and metallurgical processes, the production is likely to undergo a steadfast diminution. So far as a decrease in the purchasing value of this metal depends upon an increase in the quantity produced, it appears to me that we may dismiss our anxieties. A greater portion of the lands which are likely to yield silver in large quantities have been explored. Within ten years, despite the wonderfully active search for precious metals, no very important sources of supply have been discovered. Although the production of the Rocky Mountain districts may be somewhat increased by the work of numerous small mines, it seems more likely that at the present price of silver the product of that region will remain steadfast or be subject to a gradual diminution.

On the other hand, in the case of gold, we are clearly liable to many sudden increments in the production, followed by periods of diminished supply. If the only problems before the students of the questions connected with currency were those of a geological nature, the preference as a measurer of values must, in my opinion, undoubtedly be given to silver, for the reason that not only has the supply of that metal been more constant in the past than that of gold, but for the reason that in the future the yield promises to be less subject to sudden variation than in the case of the more precious metal.

N. S. SHALER.

Geologist U. S. Geological Survey.

EDWARD ATKINSON, Esq.,
United States Commissioner, &c., &c.

LETTER FROM JAMES D. HAGUE, ESQ. (AUTHOR OF MINING INDUSTRY, VOL. 3, U. S. EXPLORATION OF THE 40TH PARALLEL).

NEW YORK, October 27, 1887.

DEAR SIR: I have the honor to acknowledge the receipt of your letter asking my views upon the present and prospective product of silver in ratio to gold. Other engagements have prevented an earlier reply, and I regret to say that, as I am about to

leave for California, my time is now so fully occupied that I am unable to give to your inquiry the carefully studied consideration it deserves. I can, under these circumstances, only say, very briefly, that, so far as my general knowledge of current mining operations in the West enables me to judge, there is no visible indication of a largely increased production of silver in this country in the near future. On the contrary, at the present market price, I think the silver product is more likely to diminish than to increase. Chances which no one can foresee may at any time lead to the discovery of new and very productive silver mines; and if the price of silver should by any means be advanced to the old standard value, it would doubtless result in reviving many small mines which are now idle because they can only lose money under existing conditions while they might realize some profit in producing and marketing silver at \$1.29 per ounce; but, giving these possibilities all due consideration, I think the probabilities are in favor of a somewhat diminished rather than a largely increased output of silver during the next few years. Taking a general view of the gold mining industry of this country it seems to me to have increased in activity during late years, and some moderate gains in the annual product of that metal may reasonably be expected.

Very truly yours,

EDWARD ATKINSON, Esq.,
Boston, Mass.

JAMES D. HAGUE.

LETTER FROM PROF. ROBT. H. RICHARDS.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

Boston, October 29, 1887.

MY DEAR SIR: Your favor of October 16 was duly received, and in answer to your question as to "what my views may be upon the present and prospective production of silver relatively to gold," I will say: The production of silver in the United States seems to have been increasing prettily steadily up to date. In 1870 it was about \$17,000,000, and in 1885 \$51,000,000 per annum, while gold seems to have reached its maximum in 1852, with \$60,000,000 in that year, and to have then fallen gradually to \$41,000,000 in 1878. It then dropped suddenly to \$32,000,000, this falling off being due to the stopping of the hydraulicking in California and to the working out of the great ore body in the Consolidated Virginia property. Since 1879 the gold production has remained about constant, varying between \$31,000,000 and \$32,000,000 per annum.

The history of all silver-rich countries, when mining was in its primitive condition, goes to show that they have passed through successive stages. First, a period of discovery, followed by great mining activity; secondly, a period of working out the mines, and gradual falling off of production and finally of closing up the mines.

There seems to me to be no good reason why the United States should not follow the above rule, except for the age of advancement in which we live. We seem to be reaching our climax in silver activity at a period which is coincident with a period of great activity in discovery and invention.

Our great finds of ore bodies have probably been mostly made, and we are now in our period of great mining activity, but the period of falling off and decline will probably be much longer postponed here than it has been in other countries, because of the development of the science of mining, enabling us to work much deeper into the ground, and to work much closer in our processes.

Take for example the great Comstock lode. Before 1879 it went through a period of almost unparalleled production. Then came a period of falling off; no more rich ore bodies were found to take the place of those which were worked out. The closing up of the mines was imminent. But quite recently the art of concentrating Comstock ores has been perfected and now the mines are entering upon a new lease of life. The ore bodies that were not rich enough to be worked in the bonanza days are now being mined and concentrated. This discovery will postpone indefinitely the closing of the mines. They will probably continue for a good many years to produce silver at a profit.

Leadville has had its boom and depression and has now settled down to steady production for a number of years to come of low grade ores, which are nevertheless worked at a profit.

Central City and Georgetown, Colo., and many other places have been through similar periods and are in the steady business stage now.

It seems necessary to interpolate in the consideration of the United States, therefore, after the period of discovery and great profits and before the period of closing up, another period, namely, that of close business management and of careful scientific mining, milling, and smelting.

In the United States there have been no startling discoveries of silver for a number of years; no Comstock, no Leadville, no Hornsilver, no Ontario, no Butte; and yet the production of silver has gone on increasing steadily. I think this must be due to increased perfection in appliances, enabling us to go deeper and work closer. As to how long this increase can go on, and after it has ceased how soon a fall of any considerable magnitude will follow, could, I think, be better estimated by some of the officers of the U. S. Geological Survey, of the Census of 1880, or of the United States Mint.

Now as to the relative advance in silver and gold. Silver is evidently still increasing with its \$51,000,000 production in 1885, and gold is about holding its own at \$31,800,000 in 1885. But the gold quartz mines while they are generally in the same condition as the silver mines, namely, in the period of careful business management and scientific milling, they, however, differ from them in this respect, that the gold mines appear to hold their riches to a greater depth than the silver mines, and hence the former will probably last longer than the latter. And again, there are large areas of ground in California available for drift mining for gold which are as yet untouched.

On these accounts I am led to the opinion that the period of decline in the production of gold is more distant than that of silver.

Respectfully yours,

EDWARD ATKINSON, Esq.

ROBERT H. RICHARDS, B. S.,
Professor of Mining and Metallurgy.

LETTER FROM ROSSITER W. RAYMOND, PH. D., SECRETARY OF THE AMERICAN INSTITUTE OF MINING ENGINEERS.

NEW YORK CITY, October 21, 1887.

DEAR SIR: In reply to yours of October 14, relative to the present and prospective production of silver, I can only say that in my opinion a rise in the price of silver would be followed by an increase of the present production; for I know of large quantities of low-grade silver-ore which are constantly seeking a sale at the smelting works, but in vain, because the price of silver now leaves no margin to the owners of the ore after smelting charges have been deducted. I can not, however, estimate the extent of the increase, nor can I say how long it would continue. The extent of our undeveloped resources is, of course, unknown. Still, I will frankly say that in my opinion it is large, and that the restoration of the former gold value of silver would affect a great quantity of ores for many years to come.

I am not a bimetallist, as that term is commonly applied. If the United States is going to continue coining legal-tender silver money, I think it should make the dollar heavier. I also think that this would make the dollar a bigger nuisance than it is now. Consequently, I would prefer a limited legal-tender quality for silver, and a gold standard.

Unfortunately I am too greatly pressed with other (and imperative) work to accept your kind invitation to give you my views at length, as I should be otherwise glad to do.

As to the future price of silver, I think it is "down to stay," and we shall not see it again where it was before, in your lifetime or mine. I do not mean that it may not rise somewhat above the exceedingly low price of to-day.

Yours, truly,

R. W. RAYMOND.

EDWARD ATKINSON, Esq.,
Boston, Mass.

LETTER FROM J. S. NEWBERRY.

SCHOOL OF MINES, COLUMBIA COLLEGE,
New York, November 9, 1887.

DEAR SIR: In compliance with your request I send you herewith a brief statement of my views in regard to the probable future of gold and silver.

GOLD.

I have been for many years more or less occupied in studying the production of gold and silver throughout the world, and have myself visited all the important mining centers within our own territory. I began my observations in 1855 in the gold-bearing districts of California during the period of the greatest productiveness of our

placer deposits. Since then I have spent a part of nearly every summer among the mines of the West, and have just now returned from the last of these trips through some of the newer mining camps of Colorado. The result of this experience has been to convince me that our production of both gold and silver has passed its maximum, and that in the future we can not expect a yield of more than perhaps one-half the greatest annual product of gold.

Probably nine-tenths of all the gold obtained by man has been taken from placer deposits, and American experience has been no exception to the general rule. Previous to 1847 our total gold production amounted to \$12,000,000; but between 1847 and 1857 about \$1,750,000,000 have been contributed to our stock of gold. Of this fully three-fourths came from placer deposits. In 1850-1856 we obtained more than \$50,000,000 per annum in gold from our placers and almost nothing from gold bearing veins. Now, with an annual production of \$30,000,000, about one-half is from placers. Our own territory has been so thoroughly explored that no considerable superficial deposits of gold are likely to be discovered; and nearly the same thing can be said of the entire world.

In the northern extension of our Western mountain ranges, in British Columbia, and Alaska there are probably important deposits of gold. These mountains are everywhere auriferous within our territory. In Alaska gold mines are successfully worked in a few localities; gold is reported from many others. Dr. George M. Dawson has also found indications of gold for 500 miles along the mountains north of Frazer's River. Hence we may hope that a considerable contribution may be made by North-western America to the gold product of the world. It is likely, however, to come from this region in a moderate but perhaps perennial stream, and not in a flood. Great difficulties will attend the working of mines and especially placer deposits in the mountains of Canada and Alaska. The winter is long and terribly severe and the snow-fall heavy, limiting active operations to three or four months in the year; the surface is very much broken, entirely unproductive, covered with a dense forest, and peopled by unfriendly Indians. All supplies must be imported by long, rough, and expensive routes. These difficulties will restrict the production of gold to such a degree that unless the mines and placers should prove to be rich beyond all present indications, the gold product of this region must have a good and not a bad influence on the finances of the world.

Eastern North America contains in the Alleghany belt a vast quantity of gold, but this is generally in the form of low grade pyritous ores, difficult to treat. With skill, energy, and economy they may, however, be worked at a profit, and we may look upon them as offering a handsome reward for the exercise of these cardinal business virtues and as promising to supply a not strong but steady stream of this financial vital fluid.

Mexico has no important deposits of gold. For three hundred years her territory has been explored and her mines worked by an industrious and avid race of miners who would certainly have discovered and unearthed any considerable golden treasure. In a few localities gold veins and surface deposits are worked, but the relative quantity of this metal is everywhere small, and the rain-fall has been in the past too slight to furnish the motive power for extensive erosion, as it is at present insufficient to supply the needed water for successful gold washing. When no revolutions have interfered with the production of precious metals in that country, Mexico has steadily yielded about \$1,000,000 per annum in gold. This contribution may be kept up for years, but can hardly be exceeded.

The western coast of South America, so rich in silver, is, like Mexico, poor in gold. The superficial deposits which formerly existed there were diligently worked and practically exhausted by the icarial population. We learn from the Spanish chronicles that a very large sum was realized by the invaders from the golden decorations of the Temple of the Sun at Cozco, and that many of the vessels with which the prison chamber of the unfortunate Atahualpa was filled were composed of gold; but since that time the gold product of the whole coast from Ecuador to Chili has been insignificant. The mines which subsequently poured hundreds and even thousands of millions into the Spanish treasury yielded only silver.

Colombia, Venezuela, and Brazil have, on the contrary, always been producers of gold. It is estimated that from Brazil alone more than \$1,000,000,000 in gold were obtained during the first two hundred years after the advent of the Portuguese. Colombia and Venezuela are now yielding about \$4,000,000 each, annually, but the great Callao mine, which furnished one-third of this sum, has of late greatly fallen off in its productiveness. The superficial gold mines of this portion of South America were diligently worked by the ancient inhabitants, and they probably secured the greater part of the gold they contained. The gold images which they buried with their dead are now sought by a special class of miners, if such they may be called, who exploit the old cemeteries with considerable success, and gold washing is carried on in many localities; but these gold fields are no longer virgin ground, and we can not expect them in the future to yield more gold than they do at present.

The gold production of Australia has been but little inferior to that of our own country. At first it was exclusively from the placer deposits, and when the richest of these were worked out the yield was greatly reduced. It has, however, been revived by the development of reef-mining and the annual yield from both sources is now about \$30,000,000. We may hope, too, that the present rate of production will be maintained or approached for many years to come.

The great Asiatic continent once had its famous gold mines like America and Australia, but it has been so long occupied by a dense human population that its stores of gold have apparently for the most part been exhausted. The Chinese, the Hindoos, the Tartars, and their ancestors, who so long occupied the interior of Asia, have all been diligent gold hunters, and they have left no stone unturned beneath which this, the first found and most highly prized of metals, could be concealed. From the continent of Asia and its dependencies we can, then, expect little more than the present modest contribution, which may reach four or five millions of dollars per annum.

The gold product of Europe is now perhaps \$30,000,000 a year; of this nearly all or about \$25,000,000 comes from the Ural Mountains. The gold mines here came under the control of the Government in 1820, since when a steady stream, an average of over \$20,000,000 per annum, has flowed from them into the treasuries of the world. How long this contribution may continue we can not say, but it is scarcely likely to change much for some years to come.

It is possible that important discoveries of gold may be made in as yet unknown veins and placers in Africa, but the latter is improbable. The placers of Ethiopia, as we learn from the Egyptian records, were worked as early as sixteen hundred years before Christ, and we have reason to believe that the surface deposits of that continent, as well as those of Asia, were mostly exhausted before the Christian era. The working of mineral veins has hardly been attempted by the barbarous native population of Africa, and it is quite possible that stores of gold deeply buried in the earth, beyond the reach of savages, but destined to be exploited with the advance of civilization, will form an important factor in the future history of gold. The "golden sands" which have become inseparably connected with our ideas of "the dark continent" must lead up to sources in gold-bearing veins which in the future and for centuries may help to keep up the world's needed supply of gold.

With these facts in view we need not expect any other such floods of gold as those that inundated the markets of the world from the placers of California, Australia, and New Zealand, but the present yield of about \$100,000,000 is likely to be maintained for some years. Individual mines have but a limited term of service, and it is not likely that many gold mines like the Comstock and the Callao remain to be discovered. Hence, placers and great mines are not likely to be disturbing elements in the gold market, but the more thorough examination of the different countries will bring to light more productive ground; railroads and other channels of travel and traffic, and improved processes for treating refractory and low grade ores, will bring within reach and render productive thousands of minor gold deposits which will go to maintain the aggregate production. The world's stock of gold will gradually decline from the diminished supply, the increased consumption in the arts, the abrasion of coin, etc., but this change must take place slowly, and inventions like that of Cowles' electric process in metallurgy may give us substitutes for gold of equal value in the arts.

SILVER.

The problems of the future in silver production seem all to lie within our own country. The great silver belt of the world crosses our territory from British Columbia to Mexico and stretches thence southward to Chili. It is interrupted only at the Isthmus, where it is submerged. From this belt more than \$6,000,000,000 have been taken since the discovery of America, and here we must look for the signs of promise in the future production of silver. As I have before said, within our territory the silver product is not likely to increase, but is almost certain to decline, though perhaps slowly, and we may expect our mines to yield \$40,000,000 to \$45,000,000 per annum for many years to come.

Mexico has continued for half a century to produce annually about \$25,000,000 in silver to \$1,000,000 in gold. There are no indications that this state of things will soon change. It has been predicted that with the introduction of foreign capital and improved machinery the production of the Mexican mines would be greatly increased, but the experience of the last five years has not confirmed such predictions. The Mexicans are experienced miners, skilled in producing great results by simple means, are frugal, industrious, and peaceful, and it is very doubtful whether the extravagant, impatient, and speculative Yankee, with all his improved methods and machinery, will often succeed, where the patient, close-working, and economical Mexican has failed. No one knows a good thing when he sees it better than a Mexican miner and none is less likely to relax his hold when once he has his grip upon it. I think it will be rarely found that a mine abandoned by the Mexicans is worth working, and

I am quite sure that we are not to have any considerable increase in the silver product of Mexico.

The silver mines of Peru and Bolivia (Cerro de Pasco and Potosi) are the most famous in the world. No one knows exactly how much silver was taken out of them, but Chevalier estimates it at \$2,493,426,880. They have produced comparatively little for many years, but it has been generally believed that when the railroads, commenced by Henry Meigs, should be carried into the countries where the mines are situated, and modern skill, capital, and machinery be brought to bear upon them, they would still yield incalculable sums. All this is, however, a figment of the imagination. Recent thorough explorations of these mines by American experts, continued through two years and aided by the diamond drill, have failed to discover any bonanzas in either of these mines. Low-grade ore there is in plenty and that which may perhaps be worked with a small margin of profit, but as disturbers of the public peace in the financial world the South American silver mines need not be feared. In the last report of the director of the mint the yield of the silver mines of Bolivia is estimated at \$16,000,000 per annum, but I am led to believe that it is much less, probably not half of this amount. Chili is now producing about \$6,000,000 in silver per annum and it is scarcely probable that this sum will ever be greatly exceeded. The mines of Copiapo have certainly seen their best days, and those of Caracoles, more lately discovered, will never rival these in productiveness.

The silver production of America is about three-fourths of that of the whole world, and the sources of silver elsewhere are so widely scattered and individually so unimportant that they can have little bearing on the future history of this metal. From America then, if from anywhere, must come the overwhelming floods of silver, which in the minds of some persons threaten disturbance and disaster in the financial world. After a careful survey of the field, however, I see no indications of any future glut in the silver market. The mines of Mexico and South America for three hundred years have been worked by those who possessed skill, energy, and economy, and they have taken from them year by year all they were capable of yielding. Whoever comes after them will find that they have skimmed the cream of all the known ore deposits, and have been so thorough in their explorations that there is little chance of the discovery of others from which sums can be realized which can disturb the money market.

It should be remembered that these countries are easy of exploration, are mostly without timber, and are traversed by mountain ranges, of which the details of structure are everywhere visible. I think then that I am quite safe in saying that no danger of financial disturbance need be apprehended from the silver mines of Mexico or South America.

Whichever way we look, therefore, we fail to perceive any indication of storms in the business world such as might be occasioned by great changes in the production of either of the precious metals; certainly no threatenings of a sudden or serious increase in the annual production of either. On the contrary, a different and much more formidable danger is to be feared, viz, a gradual exhaustion of our mines and the diminution of the stock of gold and silver now on hand below the point where they best serve the world's purposes. Indestructible, uncreatable, readily divisible, easily coined, widely distributed, but nowhere abundant, they have been proved by long experience unique in their adaptation to the wants of society as representatives of value and circulating media. They are equally necessary and both indispensable to the safe and easy transactions of the commerce of the world. It would be a great misfortune, therefore, if either should be produced in such redundancy or deficiency as to seriously disturb the relations which they have sustained to each other and to man's daily labor, which is the real unit of value.

I am happy to assure you that with my lights I can perceive no indications that either of these dangers is imminent.

MR. EDWARD ATKINSON.

J. S. NEWBERRY.

LETTER FROM RAPHAEL PUMPELLY.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
Newport, R. I., November 16, 1887.

MY DEAR SIR: On returning from a journey I find your note of the 4th inst., saying that any communication must be sent you within a week. On the whole it does not make much difference as regards me, for on thinking it over I find that my facts are few, so I should not attempt even with time to write anything.

I will give you here my crude impressions. It seems probable that the product of silver will on the whole continue to increase with fluctuations; the discovery of new mines compensating for the exhaustion of old ones, while the growth of economy in

mining and reducing and the diminution of the amount wasted in tailings and slag will give an increase. But a greater gain must come from improvements that will render workable the large bodies of ores that are of too low a grade to work profitably at present.

From time to time there will doubtless occur, as in the past, discoveries of great bodies of rich ores which will temporarily swell the products. This can hardly fail to occur with the advance of means of transportation into the cordilleras. But it seems to me that these same remarks apply to gold as well as to silver. Here, too, there will be an increase through the opening of new mines and economies in working ores and preventing loss.

With regard to great discoveries it would seem that they are even more likely in regard to gold than to silver. The great silver fields of the world have been in the cordilleras of the two Americas. But the gold fields exist in the Americas, Australia, Asia, and Africa. And there is this to be considered in regard to the future of gold—that, while in the past the product has been practically wholly from ores carrying only free gold, processes will undoubtedly be perfected that will open to profitable working the large quantities of ores carrying gold in sulphurets and arseniurets, etc.

I am inclined to believe that gold is more widely distributed than silver. As far as our present information extends, it would seem to be much more abundant in solution in the water of the ocean than silver; for Soustadt finds 1 grain gold in 1 ton sea water, while Malaguti and Durocher found only 1 centigram silver in 1,000 kilograms of sea water.

I see no reason to suppose that the cost of producing silver will be capable of any great reduction.

Very truly, yours,

RAPHAEL PUMPELLY.

EDWARD ATKINSON, Esq.,
Boston, Mass.

NOTES ON THE RELATIVE PRODUCTION AND RELATIVE VALUE OF THE PRECIOUS METALS BY GEORGE F. BECKER, UNITED STATES GEOLOGIST.

Resources of the United States.—No one can doubt that the mining regions of the Rocky Mountains and of the Pacific slope are far from being exhausted; but even a vague idea of the prospective yield of the precious metals in the United States can hardly be obtained without considering the nature of the distribution of the ores. It has long been known that a great part of the deposits of the Pacific slope are grouped in belts or zones, nearly parallel to the mountain ranges of the region.* The precious-metal belts of the slope are reducible to three, viz, the gold belt of California, the silver belt of Arizona, which is prolonged northward into Nevada, and the lead-silver belt of Utah, lying at the western base of the Wahsatch range. It has been shown within a few years that these belts coincide with zones in which profound disturbances have taken place in past time. It is along these lines that the great upheavals in the geological history of the region have occurred, transforming oceans into continental areas and burying vast tracts of land beneath the sea. The coincidence of these lines of disturbance with the ore belts clearly indicates a direct connection between the dislocations and the genesis of ore, and points to the conclusion that along the extensive unexplored or partially explored portions of the zones of disturbance ore deposits are probably to be found.

Not all the deposits of the Pacific slope occur on these belts, but, so far as is known, all of them are accompanied by evidences of violent dynamical action. This is also true of the less sharply defined metal-bearing region of the Rocky Mountains, which also stretches in a northerly and southerly direction.

As may readily be inferred from these statements, there are a vast number of localities in the western United States in which the geological conditions appropriate to the occurrence of ore seem to prevail, but in which ore has not as yet been discovered. It is true that a great number of prospectors have traversed the country in all directions; but it by no means follows that, because much prospecting has been done, all the important deposits have been detected. Not only prospecting but mining was carried on close to the Comstock lode and close to Leadville for a considerable time before the existence of those great deposits were suspected, and prospectors had been at work for months close to the deposit of the Horn Silver mine before an accident revealed its unsuspected existence. Many other deposits have almost escaped detection, and a much more intelligent and thorough exploration of the country than any which has hitherto been made must precede the development of its full resources.

* This was first pointed out by Prof. W. P. Blake in 1866. Mr. Clarence King further developed the idea in 1870. See Amer. Jour. of Science, vol. 28, 1884, page 209.

The course of discovery will no doubt be checkered. That there will be periods at which the known ore bodies will be few is pretty certain, and that deposits of startling richness will be encountered is almost equally certain. The Comstock lode was considered nearly worthless property just before the discovery in the Consolidated Virginia and adjoining mines of the great ore body, which alone has yielded some \$120,000,000 worth of silver and gold. The incident was typical, and the same sort of thing has happened at short intervals throughout the history of deep precious-metal mining.

Probabilities as to relative production of gold and silver.—Since the discovery of gold in California the weight of the silver extracted in this country has been about seven times that of the gold. It is practically certain, however, that in future the relation will be a very different one. From the discovery of gold in California up to the close of 1860 the silver product was very small, while the gold product averaged \$50,000,000 a year. This gold came chiefly from the auriferous gravels of California, which had been accumulating for many hundred thousand years. Corresponding accumulations of argentiferous gravels are not found in nature, although the croppings of silver veins, like those of gold, are converted into detritus. Silver ores are for the most part brittle and easily reduced to powder; they are only moderately heavy, and are without much difficulty converted into a soluble double chloride. Consequently, when the croppings of silver veins are worn away by the weather or by running water, they rarely yield argentiferous gravels of any value. Gold, on the other hand, is tough, heavy, and chemically indifferent. Hence the gold derived from the erosion of veins accumulates in gravel deposits, while most of the silver is carried away. In a new mining country, therefore, there is a surface accumulation of easily accessible gold but no such store of silver, and the early precious-metal product of such a country will include a proportion of gold far in excess of that in its subsequent yield.

The richest auriferous gravels in the United States have been exhausted. Vast quantities of poorer gravels remain in California and Idaho which could be profitably mined by the hydraulic process, but the prosecution of this industry in California has for the most part been forbidden by law. By no means all the gold of the country, however, comes from gravels. Even during the census year, when the hydraulic mines were in full operation, nearly twice as much gold was produced from deep mines as from placers. A very large part of the gold extracted also comes from mines commonly regarded as silver mines. Even the Comstock lode, the enormous silver product of which gave great uneasiness, has yielded a very large quantity of gold, estimated to amount to no less than \$130,000,000, or over 40 per cent. of the value of the total yield of the lode up to June 30, 1860. In the Austin district the silver carries no appreciable amount of gold, but the gold in the ores of Eureka is worth at mint rate about half as much as the silver. At Leadville the gold produced is insignificant, and even this is not derived mainly from the great lead deposits but from auriferous ores obtained in the surrounding country.*

In 1883 the United States produced by weight 24.6 times as much silver as gold. In 1884 the same ratio rose to 25.3, and in 1885 it reached 26.† The production of each of these metals has been increased during these years, as well as the ratio of the weight of silver to that of gold. It is of course improbable that this ratio will rise indefinitely or even regularly. Some idea of its ultimate mean value may perhaps be obtained from that of the entire product of North and South America since their discovery. I have calculated this ratio for the two continents from 1493 to 1875, from data given by Dr. Soetbeer, and find it 29.1. It appeared best not to include the last ten years because of the depressing influence which the discount on silver exerts upon the mining of that metal. There seems no good reason to suppose that the average proportions of gold and silver in the unmined deposits of the western United States are likely to differ greatly from those in the average deposits hitherto worked in this hemisphere. If any variation is found, the future ratio will probably exceed 29.1 if the price of silver sinks no further, because this number is derived from data which include very large quantities of placer gold, certainly over 3,000,000 kilograms, while in the future product of the United States placer gold will be a less and less important item. The ratio of the weights of the two metals for the whole world from 1493 to 1850, or up to the time when the gold of California and Australia began to affect the proportion sensibly, was 31.5. The placer deposits of Europe were of course worked for many centuries before the discovery of America, and the high ratio for this period is no doubt due to that cause.

The effect of the price of silver on the production.—The average cost to the producers of extracting gold and silver is probably from 90 to 95 per cent. of the spot value; for while many establishments work at a great profit, others are doing dead work, or are working at a loss from lack of skill or judgment. There can be no doubt what-

* S. F. Emmons, *Geology of Leadville*, page 545.

† These ratios are computed from the products as given by Dr. J. P. Kimball in his *Report upon the Production of Precious Metals for 1886*, p. 133.

ever that very many mines in the West are working on a narrow margin and that any considerable further discount on silver, under the present economical conditions, would result in closing them. It is well known that because of the depreciation of silver, not a few mines are already shut down, which at the old value, \$1.2929 per ounce, would yield a good profit. It is, therefore, very absurd to suppose that this country can yield an indefinitely large product at the present price of silver, or at a lower one.

On the other hand, the statistics show a slow but steady rise in the production of silver in spite of the progressive decline of price. This is in part due to new discoveries, but, in my opinion, much more to the increased facilities for transportation, and the consequent cheapening of supplies in the mining districts. Railroads are now penetrating the far West in every direction and the emigration to the Pacific coast is so large that the price of labor must inevitably sink far below the old standard of \$4 a day. When means of transportation and labor become abundant, very many deposits which have long been known, but which were difficult of access and could not be worked at a profit under the conditions which formerly prevailed, will be worked either at the present or at a somewhat lower price for silver. Improvements in processes of extraction will of course be made, but so large a proportion of the cost of extracting silver now consists in the expense of mining and of handling the ore, bullion, and waste products, that no probable improvement in metallurgical processes will greatly diminish the cost of products.

On the whole, I am unable to see grounds for supposing that there is any impending dearth of silver-bearing deposits. At present prices the yield seems to me likely to increase much as it has done during the past years, or possibly somewhat more slowly. Lower prices will unquestionably check the increase, and if the price sinks sufficiently it will inevitably result in a diminution of the product; but it hardly seems possible that any one should be able to say how great a diminution in price would preclude an increase in the production.

Future of production in foreign countries.—The silver question is of course not dependent upon the United States alone. Mexico and South America together have produced in past times vastly more silver than this country, and their present output still notably exceeds our own. Like our own, too, it appears to be on the increase in spite of the discount on silver; and the development of means of transportation is increasing to the south of us as well as within our borders. Indeed, the entire silver product of the world shows a marked upward tendency, while the gold product has been until lately diminishing, though a considerable increase has taken place since 1882. It is by no means certain that the gold product of the world will again fall off. The hydraulic gravels of South America have only lately been taken in hand, and nothing is more probable than that they will immensely increase the world's gold product. There can be no doubt also that the gold product of South Africa will increase.

Judging of the precious metal resources of the world from the recorded yield of the mines for about four hundred years, it seems probable that, as the more easily worked placers become less fruitful, the ratio of the silver product to the gold product, by weight, will tend to some value not far from 30. There is, in my opinion, good reason to believe that this product ratio was very much lower in Europe during ancient times and the Middle Ages, as well as in Asia in modern times. Gold occurs to a large extent in the native state, and no knowledge of metallurgy is necessary to its extraction. Silver, on the other hand, occurs only to a small extent in the native state, and a vast proportion of this metal is found in mineral combinations which were practically intractable by the methods known to the ancients. Two great American inventions changed the whole character of the industry and far more than doubled the available silver resources of the world. One of these was the amalgamation process, invented by Medina, a Mexican, in 1557. This was complemented, in 1633, by the invention of the first efficient furnace for the reduction of quicksilver. The inventor was L. S. Barba, a Peruvian, and his apparatus is known as the aludel furnace. It is worth while to note that both in ancient Rome and in modern Asia silver was worth much more in gold than it has been in Europe since the process of amalgamating silver ores was discovered.

Relations of the demand for coin to the product.—The general question of the relations between the supply of precious metals and the prices of commodities is evidently one of the most complex in political economy, for the opinions of financial experts differ radically respecting almost every feature of the problem. I should not think of offering any opinion upon it as a whole. The question whether or not there is a scarcity of gold is more limited and simpler. While eminent authorities have maintained that there is a dearth of this metal, Mr. J. L. Laughlin* shows that the gold reserves in the principal banks of Europe and America were not only much larger in 1885 than from 1870-74, but also that they bore a much larger proportion to the total note circulation. He also points out that extraordinarily high rates of discount, supposed to

*Quarterly Journal of Economics, vol. 1, p. 345.

indicate dearth of gold, prevailed much more frequently from 1855 to 1873 than since 1873. Dr. Soetbeer* has given the results of an investigation on the distribution of the gold product in a tabular form, of which the following is an abstract:

Estimated changes in the monetary stock of gold in civilized countries 1851-'85.

Periods.	Gold prod- ucts.	Non-mone- tary con- sumption.	Addition to gold coin- age and re- serves.	Estimated stock of gold coin and gold reserves at end of pe- riod.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>
1850.....				1,200,000
1851-'60.....	2,006,000	385,000	1,621,000	2,821,000
1861-'70.....	1,900,000	877,000	1,023,000	3,844,000
1871-'80.....	1,732,000	958,000	774,000	4,618,000
1881-'85.....	746,000	574,000	172,000	4,790,000

If one compares the third column with the first, it is easy to compute the proportion of the gold product which has been added to the available stock of gold coin in each period. It then appears that for these periods, beginning with 1851-'60, the proportions of the gold product added to the available stock of coin have been, in round numbers, 81 per cent., 54 per cent., 45 per cent., and 23 per cent. Now, if there has really been a scarcity of gold of late, why was only 23 per cent. of the gold product added to the available coin of the world during the period 1881-'85? The contrast offered by these figures can also be brought out in another way. In the period 1851-'85 the gold product was 37 per cent. of the product in the ten years 1851-'60; but the gold coin added to the available stock in the five years 1881-'85 was only 11 per cent. of that similarly added in 1851-'60. Thus the additions to the available coin have diminished more than three times as rapidly as has the product. It might possibly be objected that Dr. Soetbeer's figures are not accurate, and indeed he claims only approximate accuracy for them; but the work done by this statistician is far too good to warrant the assumption that any corrections would reverse these striking results. They, with those obtained by Mr. Laughlin, seem to me to show incontrovertibly that the supply of gold is in excess of the demand for coin. It would be in vain to attempt to maintain that the non-monetary uses of gold have become so urgent as to absorb an increasing proportion of the gold product in spite of an active demand for the metal in the shape of coin, for, were this true, it is evident that in no long period such uses would absorb the entire quantity of gold in existence.

Dr. Soetbeer feels himself unable to offer a similar table for silver; but, since the silver product has of late years rapidly increased, and in 1885 was about double the average product from 1866 to 1875, it seems very certain that it too is produced in excess of the demand for coinage. This is also inferable from the tables of coinage, for while much silver coin is withdrawn from the available stock by exportation into central Asia and much is also melted down for industrial purposes, it is clear that no silver not coined can possibly be added to the available stock of coin. Dr. Kimball† gives data for the world's product and the world's coinage of silver, which it is worth while to place in conjunction.

[Silver at \$1.2929.]

	1883.	1884.	1885.
World's product	\$114, 128, 907	\$115, 859 567	\$124, 422, 342
World's coinage	109, 906, 705	90, 039, 443	97, 341, 019
Excess of products.....	4, 822, 202	25, 860, 124	27, 081, 323

* *Materialien*, 2d ed., p. 47.

† *Production of the Precious Metals*, 1886, pp. 133 and 319.

It thus seems to be clear that during the past years the product of both the precious metals has been far in excess of the increase in the volume of gold and silver currency demanded by commerce. This certainly does not seem an unnatural result if one compares the average products of these metals for different periods. For this purpose I select the periods 1851-1885 and 1801-1850, adding also 1493-1830. The data for the computation are taken from Soetbeer, excepting those for the years 1883-1885, which have been last revised by Kimball.

Total products and mean annual products.

	1851-1885.	1801-1850.	1493-1850.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>
Total product, gold	6,402,243	1,184,870	4,752,070
Annual product, gold	182,921	23,697	13,274
Total product, silver	57,145,444	32,723,450	149,826,700
Annual product, silver	1,632,727	654,469	418,510

Prior to 1851 precious metals enough for the purposes of trade were coined, and a large volume was also lost to Europe and America in central Asia, or was industrially consumed. Since that period there has been an immense increase in the amount of business done, but the annual gold product is seven and one-half times what it was during the first half of the century, and the annual silver product is two and one-half times as great as it then was. The volume of commercial transactions has, of course, increased enormously in forty years, but balances only are settled by coin, and I can see no reason to believe that the requisite yearly addition to the coin supply has increased in a proportion so great as the precious metal product.

Relative prices and relative product.—It seems probable from the above that the available quantity of the precious metals up to some epoch subsequent to 1850 was no more than sufficient to satisfy the urgent demand upon it, while in later years one or both of the precious metals have been produced in greater quantities than were necessary to satisfy the pre-existing demand. The question therefore suggests itself whether the price of silver in terms of gold may not have been determined by distinct causes in the two periods.

Gold and silver are so similar in their physical properties that they are used for almost exactly the same purposes, and in nearly all cases one could be substituted for the other without any detriment to the end in view. If zinc and tin were as similar as gold and silver, it is at least natural to suppose that the rarer of the two would command a higher price than that which was more common, and that the prices of the two would tend to be inversely proportional to the quantities produced, so that if the zinc product were eight times as heavy as that of tin, a pound of tin would be worth eight times as much as a pound of zinc. As a matter of fact much less tin than zinc is produced, and the price of tin greatly exceeds that of zinc, but as these two metals can be substituted for one another only in certain cases, the relative price differs considerably from the relative product.

Through the compilations of Dr. Soetbeer it becomes easy to examine the relative price and relative product of the precious metals, though neither he nor, so far I know, any other writer has compared these two ratios or presented any table of the relative products at different periods.* The following table shows the periods for which I have computed the ratio between the silver product and the gold product, and the periods for which the average prices of silver in gold have been calculated. The estimates of production from which the product ratios have been calculated are those given by Dr. Soetbeer,† excepting 1883-1885, which are those of the Director of the Mint.‡ The relative values of the metals, or the number of pounds of silver which a pound of gold will buy, are recorded by Dr. Soetbeer§ from 1493 to 1875. The later figures are from Dr. Kimball's report.

* The time allowed me for the preparation of these notes is insufficient to make a search through economic literature sufficiently thorough to justify an absolute assertion on this point.

† *Materialien*, etc., p. 1. Dr. Kimball's figures for 1883-1885 are given in his Report on the Production of the Precious Metals, 1886, p. 132.

‡ These are preferred simply because Kimball has revised them since Soetbeer's figures were published. The oftener such estimates are revised the more accurate they become.

§ *Edel-Metal-Production*, 1879.

Mean annual product, relative product, and relative value of gold and silver, 1493-1885.

Period.	Mean annual product.		Ratio of silver product to gold product.	Ratio of value per kilogram gold to silver.
	Gold.	Silver.		
	Kilograms.	Kilograms.		
1493-1520.....	5,800	47,600	8.1	*10.75
1521-1544.....	7,100	90,200	12.6	†11.25
1545-1580.....	8,510	311,600	36.6	‡11.30
1581-1590.....	6,840	299,500	43.8	11.50
1591-1600.....	7,380	418,900	56.8	11.80
1601-1620.....	8,520	422,900	49.6	12.25
1621-1640.....	8,300	593,600	47.4	14.00
1641-1680.....	8,770	366,800	41.8	14.50
1681-1680.....	9,280	337,000	36.4	15.00
1681-1700.....	10,765	841,900	31.8	§14.97
1701-1720.....	12,820	355,600	27.7	15.21
1721-1740.....	19,080	431,200	22.6	15.08
1741-1760.....	24,610	533,145	21.7	14.75
1761-1780.....	20,705	652,740	31.5	14.73
1781-1800.....	17,790	879,000	49.4	15.09
1801-1810.....	17,778	894,150	50.3	15.61
1811-1820.....	11,445	540,770	47.2	15.51
1821-1830.....	14,216	460,580	32.4	15.80
1831-1840.....	20,289	506,450	29.4	15.75
1841-1850.....	54,759	780,415	14.3	15.83
1851-1855.....	190,388	886,115	4.4	15.41
1856-1860.....	201,750	904,990	4.5	15.29
1861-1865.....	185,057	1,101,160	5.9	15.41
1866-1870.....	195,025	1,839,085	6.9*	15.56
1871-1875.....	173,904	1,989,425	11.3	15.98
1876.....	165,956	2,323,770	14.0	17.88
1877.....	179,445	2,398,012	13.3	17.22
1878.....	185,847	2,551,304	13.7	17.94
1879.....	167,307	2,507,507	15.0	18.40
1880.....	163,515	2,479,998	15.2	18.05
1881.....	158,864	2,592,639	16.3	18.10
1882.....	148,475	2,760,065	18.6	18.10
1883.....	144,727	2,746,123	19.0	18.64
1884.....	153,193	2,788,727	18.2	18.57
1885.....	156,280	2,993,805	18.8	19.41

* For the period 1501-1520.

† For the period 1521-1540.

‡ For the period 1541-1560.

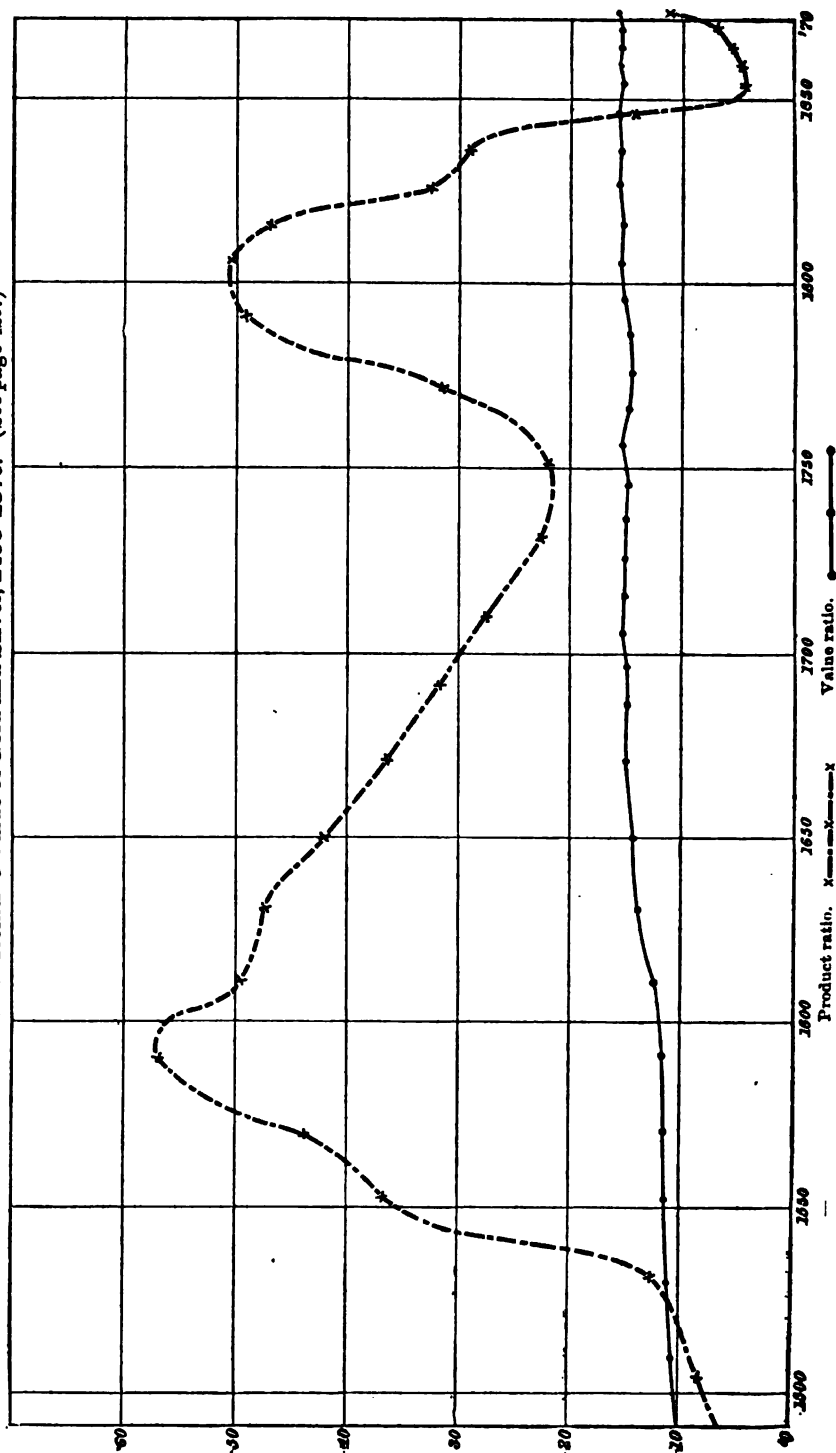
§ The curve is plotted for periods of ten years from 1680 on to 1850.

In the diagram on page 430 I have plotted the two ratios for each period given in the table from 1493 to 1870. The horizontal distances are proportional to the time, and the two curves represent the ratios. Each value of the product ratio, or of the average yearly product (by weight) of silver divided by that of gold, is marked by a cross, and each value of the value ratio, or of the number of pounds of silver which a pound of gold would buy, is marked by a dot.

The diagram shows most manifestly that during the period 1493-1870 the relative product exerted little or no influence upon the relative value. Between 1600 and 1650 there was a small rise in the relative value of gold, which is, perhaps, ascribable to the great rise of the product ratio. This reached a maximum in 1600, and its increase was caused by the great output of Potosi soon after the discovery of the amalgamation process. After 1650 the relative value remained between 14 and 16. As the value curve is plotted from data for the mean value for several years, it is important to observe that there were no considerable minor fluctuations which have been obliterated by taking averages. Soetbeer gives the value for each year from 1637 onward, and in no single year between that date and 1870 did the mean value ratio exceed 16.25 or fall short of 14.14.

In the diagram on page 431 similar curves are shown on a larger scale and in more detail for the period 1866-1886. It will at once be noted that from 1873 onward the two curves show the strongest sympathy. Every fluctuation in each is accompanied by a similar fluctuation in the other. No one accustomed to the study of relations as represented by curves could hesitate to conclude that a very intimate relation existed between these lines, and that the two ratios which they represent are connected in the most intimate manner. The probability against such a number of corresponding fluctuations being accidental is so great that it may be pronounced substantially infinite.

Relative Product and Relative Value of Gold and Silver, 1493-1870. (See page 429.)

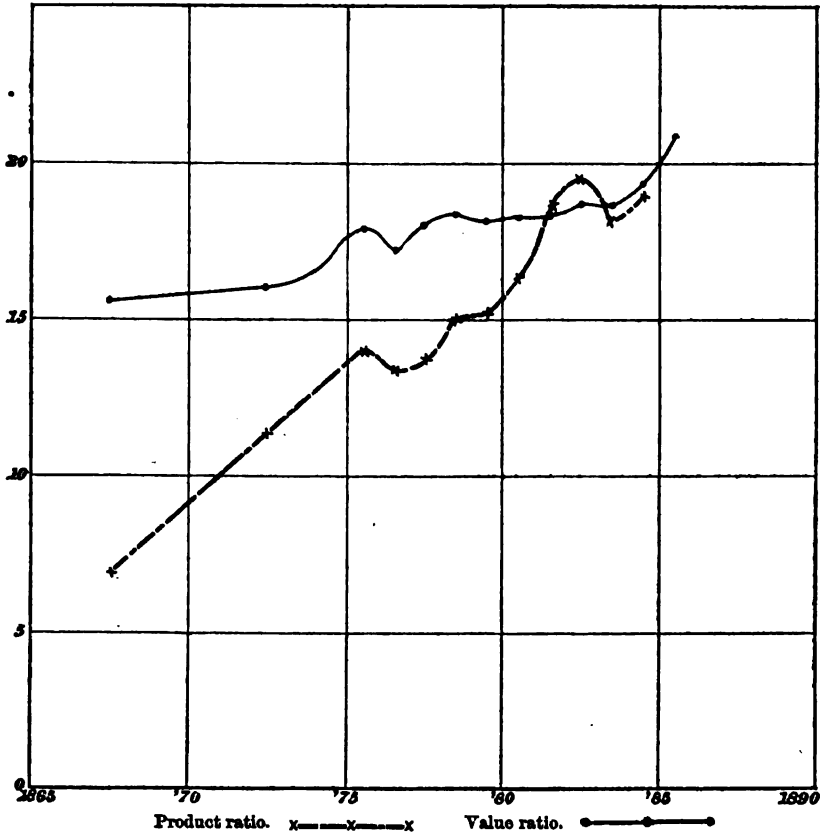


It appears, therefore, to be certain that since 1873 the price of silver has been chiefly determined by the relative production, or perhaps more strictly, that the two ratios have exerted a strong mutual influence, while it is equally certain that from 1650 to 1872 the price of silver and the relative production of the two metals were independent. It is most important to ascertain the cause of this difference between the two periods, if possible.

Cause of the difference before and after 1873.—Aside from this relation between the two ratios, the most striking difference between these periods is the average annual production, and the cause of the change in the law governing the price of silver seems probably connected with the change in the annual yield of the mines. The increased yield after 1850, however, did not affect the price immediately, or, indeed, for a considerable number of years, showing that a certain accumulation of the precious metals was necessary to induce a change in the conditions governing the price of silver.

Relative Product and Relative Value of Gold and Silver, 1866—1886.

(See page 429.)



The statement that the value of silver relatively to gold remained substantially constant for over two hundred years at about 1 to 15½ is equivalent to the statement that in such quantities as silver bullion was offered to buyers it found a market at that price, and that silver coin was always exchangeable for gold at the same figures. How did it happen that although the ratio of production fluctuated enormously, and presumably also the relative quantities of coins of the two metals, neither metal was depreciated? The answer I believe to be very simple. It is evident that people who handle money care very little, under ordinary circumstances, what is the nature of the money in their possession, provided that, when they choose, they can exchange it at par for other forms of currency. After United States notes became redeemable in gold there was no run upon the Treasury, because holders of the notes were sure of

being able to get gold for them whenever they wanted it. In the same way token coins are as freely received in trade as gold is, so long as it is known that they will be redeemed on demand. Under certain still to be investigated conditions, therefore, any country could at will vary the proportions of gold and silver in the currency, provided that a sufficient reserve of each metal was always maintained to meet any probable sudden demand for the exchange of one for the other. Under such conditions it is evident that great fluctuations in the product ratio could occur without impairing the ability of commercial nations to redeem, in gold, quantities of silver sufficient for the needs of the community, at the legally established ratio. So long as this remained possible the price of silver could not vary considerably. No one would sell silver below the coining value when he could get that rate for it from the Government, and no one would pay a higher price for silver when he was at liberty to exchange gold coin for silver coin dollar for dollar.

This stability in the price of silver could be maintained only so long as the quantity of circulating medium demanded by trade, added to the inevitable losses and waste of the metals and to the quantity urgently demanded at the standard price, or above it, for industrial consumption, and for permanent exportation to semi-civilized countries, equaled or exceeded the available supply. It is clear that this state of things is compatible only with a moderate production; for the moment that more of either metal was put on the market than could be absorbed in these ways, it would be more profitable to the producers to submit to a discount than to hold their bullion. If the surplus were not a mere local and temporary matter, the price of silver in terms of gold would rise or sink all over the world. If silver were the metal in excess, it would drive gold out of circulation in those countries where an attempt was made to retain silver as a standard, and could circulate only as a token coinage in those countries which adhered to gold. If gold instead of silver were in excess, the parts played by the two metals would be reversed.

Great fluctuations in the ratio of the gold product to the silver product can thus occur without necessarily affecting the price of silver to a considerable extent, so long as the total product of the precious metals does not exceed the demand of the commercial world for coin, plus the demand for these metals at coining rates for non-monetary application. Under these circumstances the mints completely control the precious metal market, and make the price of silver to suit themselves. But when the quantity of the precious metals produced exceeds the limit just defined, the mints, being unable to increase their output beyond the needs of the commercial world for coin, can not possibly retain control of the market. The relative value of the two metals will then cease to be fixed by coinage laws, and will be determined by purely commercial considerations. As has already been pointed out, whenever trade relations determine the relative value of the precious metals, there will be a strong tendency for the prices to adjust themselves in the inverse ratio of the products.

It is certain that prior to 1873 the coinage laws fixed the price of silver, and that the national treasuries were able to control the market for silver, for in no other way could considerable fluctuations have been avoided. It is also certain that in 1873 the laws ceased to determine the price, as if there were an excess of silver in the market, and that since that time the price of silver has been chiefly determined by the ratio of the production of silver to that of gold, as it would be if either of the two metals were produced in excess. The analysis of Dr. Soetbeer and the coinage statistics also show that a diminishing proportion of the yield of each metal is added to the available stock of coin. All of these facts point to the conclusion that the supply of silver is now greater than the demand for it at coining rates.

Probabilities as to the future prices of silver.—Silver producers and all those interested in obtaining good prices for silver naturally wish that the value ratio should return to 15½, and desire legislation tending to produce that result. It seems to me conclusively shown above that the volume of the precious metals is greater than the demand for them at coining rates, and that the market for silver is therefore no longer under the direct control of the coinage laws as it was prior to 1873. This being the case, no mere readjustment of the proportion of gold and silver in circulation will materially affect the price; for no more currency can be forced upon the commercial world than is demanded by the exigencies of trade,* and the quantity of the precious metals in the market beyond this amount is now sufficient to determine their relative price irrespective of the coinage laws.

Since, then, the mints can not now put into circulation all the silver not demanded at or above coining rates, they stand in the market on the same footing as other buyers. It is conceivable that the commercial nations should agree to buy silver in any quantities which might be needful to raise the price of silver to coining rate, paying in gold or in Government securities and withdrawing the silver not needful for

*When a nation obtains money from abroad and spends it rapidly at home, a local inflation of the currency with its attendant disasters occurs, but the coin rapidly re-distributes itself. Under normal conditions there exists no machinery for putting more coin into circulation than is called for.

coinage from commerce. This seems to me the only way open to any buyer to control the market, and it seems to have been the way in which the treasuries of the world did control the market prior to 1873. The peculiarity of the earlier period consisted in the fact that the surplus of the precious metals not needed for coinage and not called for in open market at coining rates was nil, whereas it is now very great. If, in 1885, some \$24,000,000 worth of silver had been withdrawn from commerce, in addition to what was actually withdrawn, the weights of the remaining gold and silver products would have been to one another in the inverse ratio of their coining value per ounce, and, according to the results deduced above, the silver left in the market or in circulation would have tended to the rate of \$1.2929 per ounce. The price, however, could now be raised to this figure so cheaply, for great quantities of silver have been withdrawn from circulation by individuals at the low prevailing rates of late years, and a sudden large rise in price would bring much of this once more into the market, where it would produce the same effect as newly-mined metal. A rise of price would also be a great stimulus to the silver industry, and the output would quickly increase by millions of dollars.

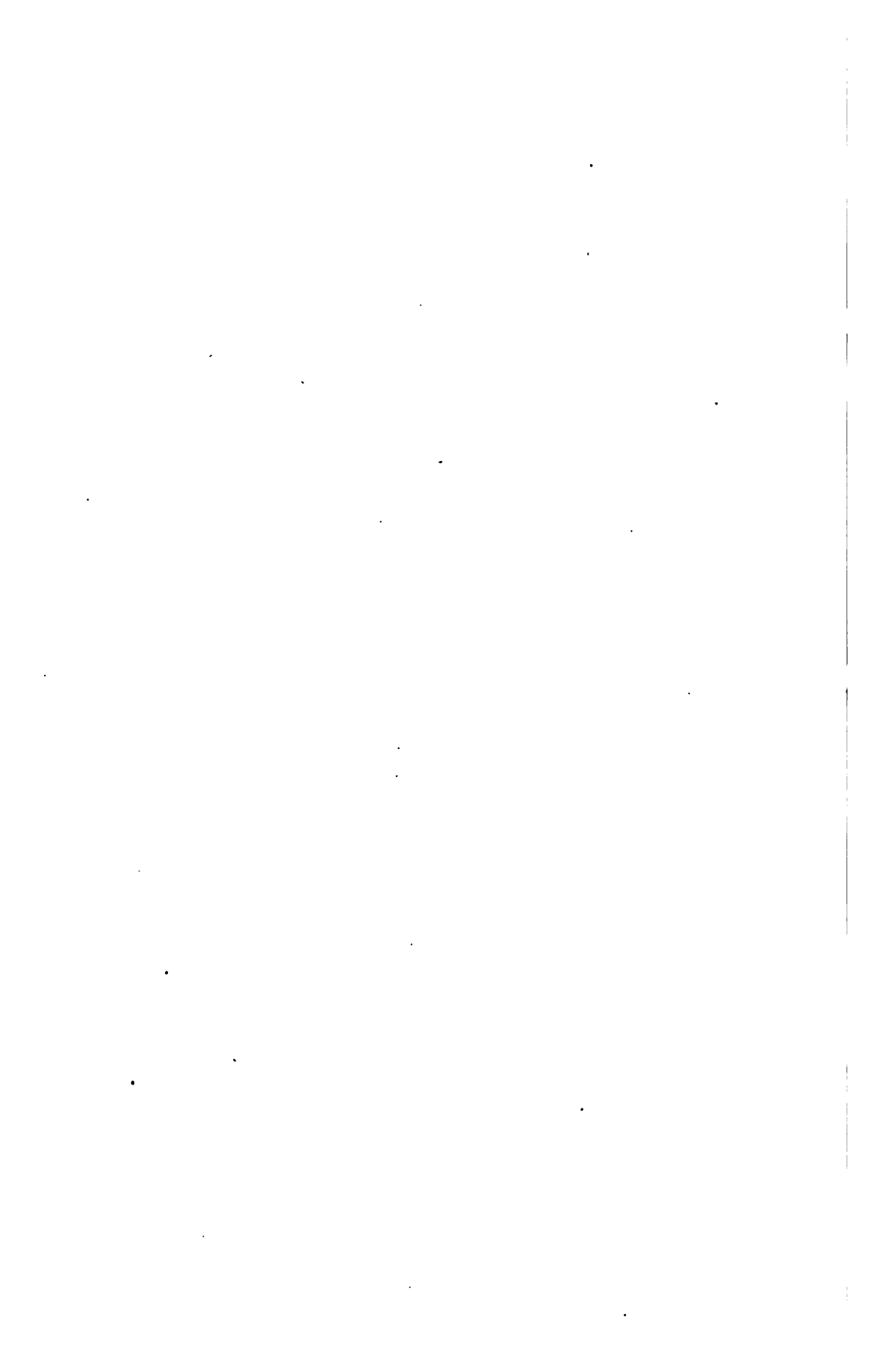
It is manifest that the commercial nations could not be brought to embark in so hazardous an experiment as the attempt to maintain the price of silver at the expense of an increase in expenditure or in debt which would certainly amount to tens of millions of dollars yearly, and which might reach \$100,000,000. This being impracticable, I believe the price of silver to be wholly beyond their control. Half-way measures would not answer the purpose, for, if the commercial nations were to agree to coin for private account a quantity which, though large, should prove insufficient to raise the price of silver to coining value, and were at the same time to make silver redeemable in gold, the result would simply be a run on every treasury and the exhaustion of the gold reserve. This would amount to the adoption of a silver standard, and gold would then be quoted as at a premium, but the relative values of the two metals would not necessarily be changed; for as long as the mints could not control the market for both gold and silver, the relative values of the two metals would be determined by commercial considerations. Silver coined for public account while the market price of the silver is below coining rate is in every respect token money. The United States coin nearly thirty million silver dollars a year for the express purpose of raising the price of silver, and the price of silver, instead of rising, continues to sink.*

As commerce grows the demand for the precious metals increases, and it is possible that this demand will eventually become so great that the price of silver will again come within the control of legislation; or, in other words, all the silver product not demanded at coining rates or above them for non-monetary consumption may come to be needed for coin; but there seems to be no immediate prospect of this. Though population is increasing very fast, the ratio of the silver product to the gold product is increasing still faster, and as South America and Africa become commercial countries they will demand gold for their international transactions as well as silver for home use. Indeed, the more commercial they become the more the character of their currency will approximate to that of other commercial countries. In the mean time their silver deposits will be worked. They can not be relied upon, therefore, to absorb the surplus silver of the world. I can but conclude that the time when the demand for coin will restore the value of silver to its old level is far distant.

Until that time comes the price of silver will, in my opinion, be chiefly controlled by the ratio of the weight of the silver product to that of the gold product. The product ratio will probably increase at a diminishing rate, because the price of silver will fall, and the production will be correspondingly lessened. The ratio of the value of gold to that of silver, which is already over 20, will, in my opinion, ultimately rise to above 25, and, from present indications, it is possible that it may touch 25 by the year 1900.

NOVEMBER, 1887.

* These dollars pass at par in spite of the fact that their bullion value is only about 75 cents, because they are practically redeemable, although not nominally so. The Government receives from its debtors any of the kinds of money which it issues, and pays its creditors in any form of currency they may elect to receive. There is, therefore, as yet, no difficulty in returning to the Treasury any silver not wanted, or in obtaining from the Treasury an equal amount of gold. The silver dollars are thus, in fact, token money as much as are the nickel five-cent pieces. Both have an intrinsic value, though not that stamped on their faces. They pass current because they are redeemable.



APPENDIX D.

MATERIALS

TOWARD THE ELUCIDATION OF THE

ECONOMIC CONDITIONS

AFFECTING THE

PRECIOUS METALS

AND THE

QUESTION OF STANDARDS.

PREPARED AT THE REQUEST OF THE

SOCIETY FOR PRESERVING THE ECONOMIC INTERESTS
OF TRADE AND MANUFACTURES,

BY

AD. SOETBEER.

SECOND REVISED EDITION.

TRANSLATED BY

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Assistant Professor of Political Economy in Harvard University.

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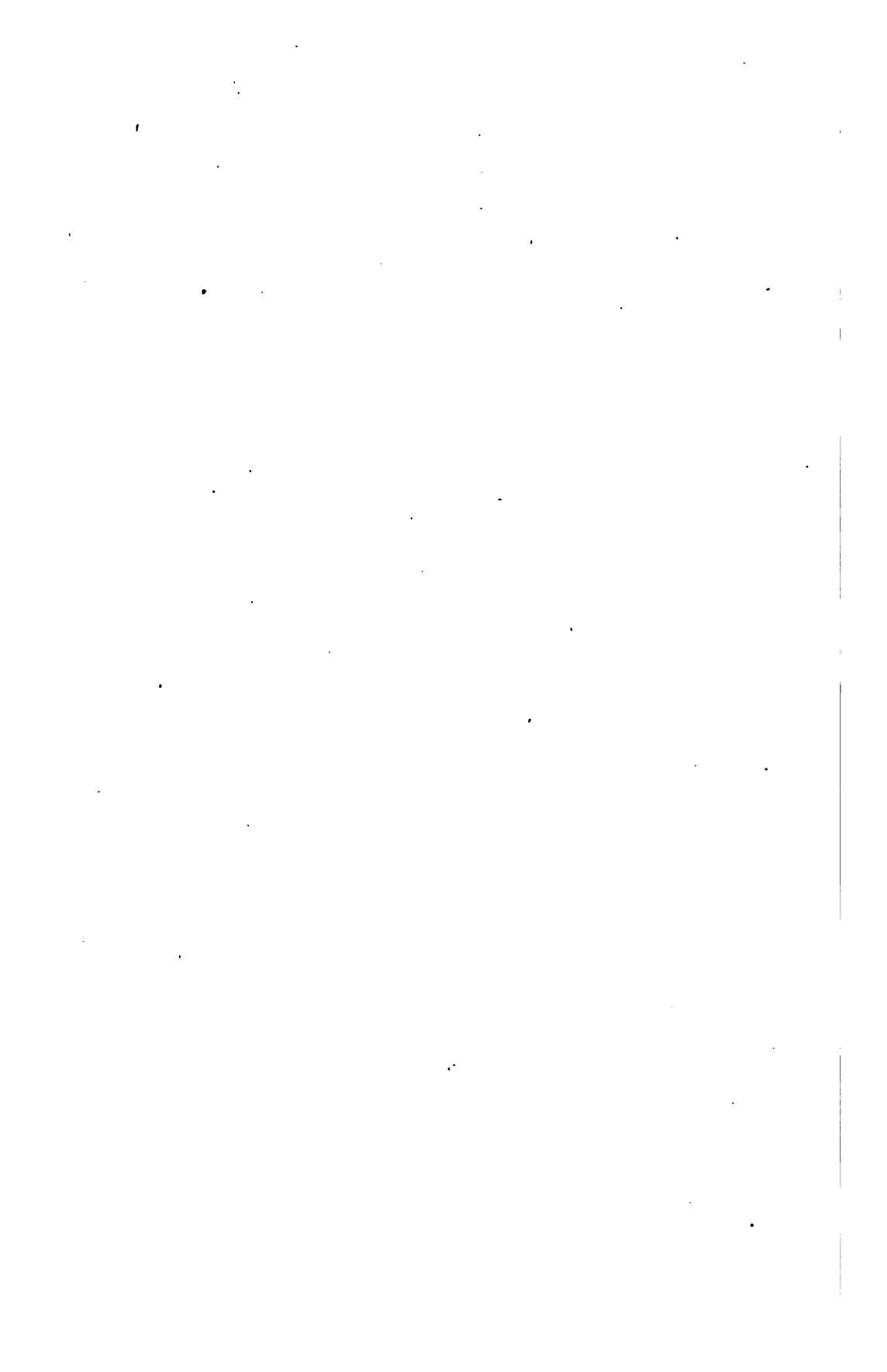
TRANSLATOR'S PREFACE.

I have undertaken with pleasure the translation into English of Professor Soetbeer's materials on the silver question. No other such valuable and complete collection of facts and figures exists, and it can not but further the solution of that question to make them available to the English-speaking public. Professor Soetbeer has gathered and sifted his information with extraordinary care and industry, and his results may be accepted and used with confidence.

The translation had to be done quickly, and it was not practicable to reduce the figures in the table to our system of weights and coins. Professor Soetbeer, however, has himself been so careful to reduce all important figures to terms of metric weights or of German coins, and has everywhere done so much to make comparisons easy, that little difficulty will be found in making all needed applications to our own country from his figures. The need of haste has also prevented me from revising the tables as carefully as I should have preferred. The printed sheets containing Professor Soetbeer's figures have been sent directly to the Government Printing Office, where they have doubtless been reproduced with accuracy. Lastly, I beg indulgence for imperfections in style which might have been avoided by greater deliberation. Accuracy has been aimed at above all things.

F. W. TAUSSIG,

CAMBRIDGE, MASS.,
November, 1887.



PREFACE.

In the beginning of May, 1885, I was asked by the president of the Society for Preserving the Economic Interests of Trade and Manufactures to bring together "Materials toward the elucidation of the economic conditions affecting the precious metals and the question of standard of value," which were then to be published for the use of its members and others interested in these problems. The great extent of the task, and the peculiar difficulties of carrying it out with the necessary exactness and completeness, were immediately apparent to me, while, on the other hand, I had to acknowledge that it was timely and important in the present stage of the silver question. This last consideration, and the fact that I had already prepared materials relating to the question, finally overcame my hesitation, and I declared myself willing to undertake the execution of the desired publication. This was done, nevertheless, on the express condition that full assistance should be rendered by the Bureau of Trade Statistics in Hamburg, whose liberal assistance I had had the pleasure of enjoying in previous investigations. This was promised, and has been rendered to me, as well in the first as in the present second edition, in the most friendly and complete manner. If the materials here put together fulfill the intended purpose and prove of permanent statistical value, the credit belongs, after the original movers in the society mentioned above, to the complete and thorough co-operation of the Hamburg Bureau of Trade Statistics, and especially to its head, Mr. G. G. Heinz. Without this indispensable aid the present publication, notwithstanding all the previous preparation and all other aid, would have been quite impossible.

The supposition on which the work was undertaken was at first that it was only to have statistical and bibliographic contents, and that discussions of principle on the merits of and objections to the gold standard and the double standard, as well as controversies on coinage policy, were to be excluded. On that account the endeavor was made to render the selection and presentation of opposite opinions (in so far as their presentation was necessary to an understanding of the materials) quite impartial. Further, it was necessarily my point of view, when once the collection of materials had been taken in hand, to keep these as free as possible from all superfluous even though perhaps interesting discussions; while on the other hand desire for brevity, or consideration as to the number of pages, was not to induce me to omit or abridge anything which it was of practical or scientific interest to learn or to have completely presented. Consequently the Materials have become of considerably greater size than had been originally intended. We hope, however, that this will be so much the less a reproach, since the increase has been in part brought about through the fact that the infor-

mation communicated by the great banks and other official sources, which has not before been brought together in such completeness, has been set forth in all detail.

The same considerations have been kept in mind in this second edition. For the rest, it has been completed in essential points, and in large part revised.

In the first place, and as a matter of course, the statistical results of the year 1885, and averages from 1881 till 1885, instead of those from 1881 till 1884, were inserted.

In regard to the other changes and revisions of importance, further information will be found in the various parts of the work.

The first part of our work consists necessarily of surveys of the production of gold and silver. On this point we have used our own earlier estimates, and from these have taken in a concise abstract the more important points, with the needed explanations. For recent years the latest and most trustworthy data have been inserted; in part they have been reached through inquiries of the German diplomatic representatives in the different producing countries, which have been kindly undertaken at the request of the Ministry of Foreign Affairs in Berlin. The statements and estimates of the production of gold in recent times show a considerable decrease in comparison with the first decades after the discovery of the Californian and Australian gold fields. We estimate the production of gold somewhat higher than is usually the case in England and in the United States. The difference arises because we have felt compelled to put a higher estimate on the production outside of the United States, Australia, and Russia. This accessory gold production, if so it may be called, has been assumed by us to be for the last five years between 23,000 and 24,000 kilograms annually, which is rather too low than too high an estimate.

The approximate correctness of our estimate of the production of the precious metals we venture to emphasize the more because even in very recent times and in prominent publications dealing specially with such subjects (for instance, in the Journal of the Institute of Bankers, March, 1886, p. 176), strikingly low statements of the yearly productions of the precious metals appear. We reproduce the statements of Sir Hector Hay, there given, for the years 1881 to 1885, and opposite them place our own estimates:

Years.	Gold.		Silver.	
	Hay's estimate.	Our estimate.	Hay's estimate.	Our estimate.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
1881.....	392,000,000	443,000,000	376,000,000	397,000,000
1882.....	330,000,000	414,000,000	401,000,000	424,000,000
1883.....	330,000,000	403,000,000	360,000,000	424,000,000
1884.....	330,000,000	408,000,000	345,000,000	443,000,000
1885.....	330,000,000	(ca. 410,000,000)	350,000,000	(ca. 453,000,000)

Our detailed statements and estimates and reasonings in regard to the production of the precious metals in the important countries (see pages 17, *seq.*) should leave no doubt that these figures, as remarked above, are considerably within the facts, and are not to be considered as in any way exact.

For a long time, in the controversies over bi-metallism, the estimate of the varying gold and silver production from year to year was apt to

be treated as the most important factor in the question of standards. An impartial consideration of the facts supports the view that, while in course of time the general conditions of the production of the precious metals may exercise a decisive influence, it makes little difference whether in particular years the production of gold and silver varies by a few per cents, or possibly by half a per cent. The total production of the precious metals from 1851 till 1885 may be estimated approximately at 6,383,000 kilograms gold and 57,564,000 kilograms silver. The annual production on the average of the last five years, 1881 to 1885, amounted to about 149,000 kilograms of gold, with a silver production of more than 2,800,000 kilograms, while on the average of the years 1856 to 1860 there were produced approximately 201,750 kilograms gold and only 904,990 kilograms silver.

The calculation of the value of the silver product has undergone an essential change in this second edition of the Materials. After the price of silver in recent years had undergone so enormous a change that the ratio of silver to gold in free markets was nearly 21 to 1, it appeared no longer proper to follow the former custom of estimating the value of silver throughout on the ratio of $15\frac{1}{2}$ to 1. But, obviously, consistency required that if for recent times the actual ratio of silver to gold was to be used in calculations, this actual ratio should also be used, wherever possible, for earlier times, in calculations of the value of the silver product; for instance, for the periods when the ratio was less favorable to gold. If for the period 1881 to 1885 the kilogram silver was considered equal to 150 marks, German gold, then for the period 1581 till 1600 the kilogram silver was to be reckoned as 236 marks of gold.

The second part gives monthly statements of the ratio between gold and silver from 1851 till August, 1886, on the basis of London prices of silver. Here there can be no question of any uncertainty in the data. In the decade 1841 to 1850 the average price of silver in London was 59½ pence per standard ounce (ratio, 15.82 to 1); in the decade 1861 to 1870 it was nearly 60 pence (ratio, 15.48 to 1). In the first nine months of 1886, however, it was only 45 $\frac{3}{4}$ pence (ratio, 20.88 to 1)!

In consideration of the extraordinary interest which attaches to the great changes that have taken place in the course of centuries, and especially in recent times, in the ratio of gold to silver, we have considered it proper to treat the history of the ratio in the new edition with greater detail than in the first edition. We hope that this addition will be welcome to many readers. It will appear from it that more than two thousand years ago the ratio of the precious metals already occupied men's minds, and that in former centuries the relative value of gold rose considerably within a comparatively short space of time.

The third part is concerned with the important and difficult task of the consumption and location of the precious metals. So much as is used for coinage may be ascertained with exactness from the records of the mints. Our figures show that, in civilized countries, in the period of thirty-five years, from 1851 to 1885, about 23,104 million marks of gold and more than 7,506 million marks of silver (nominal value) were coined; that is, considerably more gold has been coined than was newly produced in that period. This is explained by the circumstance that large quantities of gold coins have been melted down and recoinied. In recent years such recoinages seem to have diminished very much, as regards those coins for which there is likely to be, sooner or later, a prospect of remitting them with profit to the country whence they came. In regard to silver coins, as well legal tender as subsidiary coins, the case is different. The coinage in civilized countries since 1875

by no means equals the production of silver, and what once has been coined remains in circulation, except in so far as it is retired by the governments or is lost.

The industrial use of the precious metals was first especially investigated by us in 1881, so far as it was possible to obtain information about it, although it was obvious at the outset that exact results were not to be expected. In the present Materials it has been attempted to complete and carry further the estimates on this point. According to these estimates it seems necessary to assume that, although the industrial use of silver in European countries is nearly stationary and is much below the recent production of silver, the use of gold for ornament and other purposes in the arts shows a tendency to grow, and absorbs a very considerable part of the annual production of gold. Upon the whole, the present annual industrial use of gold is estimated by us at, in round numbers, 90,000 kilograms. We believe that this estimate may be accepted, although the investigations which the Director of the Mint of the United States has made in regard to the use of the precious metals in the arts for the year 1885 show a considerable smaller use than a similar investigation indicated for the year 1883. (See below, pages 69, 70.) It must be remembered that in our estimate of the use of the precious metals in the arts not single years, but averages of several years, are considered, and that, if a partial diminution of the use of gold for certain kinds of ornament may appear, on the other hand the increase of population and wealth in the European countries in one or another way, no single way perhaps noticeable, lead on the whole to an increase of the non-monetary use of gold. In this third part a complete presentation is given, also, of the flow of the precious metals to eastern Asia, in which not only the enormous shipments of silver, but in recent years also the exports of gold, to India (amounting between 1880-'81, and 1884-'85, to more than 94,000,000 marks per year) deserve special attention.

In the fourth part the much-discussed subject of the movement of the precious metals from country to country is taken up. In the statistics of the international trade of some of the most important countries the figures in regard to the export and import of the precious metals show, as our comparative statements make plain, the most extraordinary divergencies. It is much to be wished that the presentation of these divergencies for a series of years, especially in regard to France, may induce the authorities to investigate thoroughly (as has not yet been done) this state of things. It is the more welcome that in those countries which are above all to be considered, England and the United States, the general agreement of their statistics in regard to the movement of the precious metals during longer periods gives us an assurance that, on the whole, we have positive data for the approximate ascertainment of the most important international movements of the precious metals. The practical agreement of the figures in the statistics common to these two countries, which it is impossible to ascribe to mere accident, permits us to assume that the data of their intercourse in the precious metals with other countries do not vary too far from the facts.

If, notwithstanding the obvious inaccuracy of the statistics, our Materials present a series of tables in regard to the export and import of the precious metals in several countries, we have been influenced by the consideration that these figures, since put together for each country on the same plan, may serve for comparing different years with each other. There would have been no difficulty in increasing considerably

the number of such tables; but the need of conciseness required some limitation.

In the fifth part, which considers the probable supply of the precious metals on hand in European countries, we have given the information offered us in the most friendly manner, and in sufficient completeness, by the administrations of the leading banks. We have given separately the amounts of gold and silver in the great banks and in certain treasuries at the end of each year since 1871, and for certain banks since 1851, so far as positive statements were to be had. The extraordinary interest for the question of standards which attaches to these exact figures is obvious. Unfortunately there are gaps; but on the whole one grasps readily the shiftings which have taken place in the accumulation of the great stock of gold and silver.

The development of credit and of clearing-house transactions in the wholesale trade of recent times has been the means by which the cash holdings of most great banks have remained in wonderfully small proportion to the enormous quantities and the gigantic total of the exchanges based upon them. A few decades ago, in the larger trading countries, these exchanges took place chiefly by means of bank notes, of which a larger or smaller part was not covered by coin. The rise of prices, speculation, and commercial crises, were in those times ascribed mainly to excessive issues of notes, and it was supposed to be of particular importance for commercial statistics to have continual information as to the notes in circulation and the coin held by the banks for their redemption. Since the accounts of most of the banks of issue state, in addition to the coin reserve, the amount of notes in circulation, it is possible to ascertain the amount of uncovered notes, which form an equally important and equally effective circulating medium as the notes represented by actual coin. Our materials give, in the usual manner, the note circulation indicated by the official statements. But we have not refrained from pointing out that checks to order, and deposits payable on demand, have been equally important for the quantity of the circulating medium and for the purchasing power in existence, as bank notes, and that in this state of affairs it would be more proper to set these obligations side by side with the note circulation.

We have put together (see page 109, below), according to the figures that lie before us (completing them by estimates in some cases) the coin holdings of the banks and certain treasuries at the end of calendar years, and the results, reckoned in German marks, are as follows:

Year.	Amount.	Year.	Amount.
	<i>Marks.</i>		<i>Marks.</i>
1877.....	2,890,000,000	1882.....	4,070,000,000
1878.....	2,850,000,000	1883.....	4,000,000,000
1879.....	3,500,000,000	1884.....	4,680,000,000
1880.....	3,790,000,000	1885.....	5,040,000,000
1881.....	3,900,000,000		

A continuous increase appears in these coin holdings, which form the secure metallic basis for the gigantic exchanges of domestic wholesale trade and for the international movement of gold. Whether this increase is to be explained by the fact that the ordinary use of money in retail trade continually dispenses with large quantities of gold coins, and permits these to flow into the banks, or whether, notwithstanding the decrease in gold production, considerable parts of the annual prod-

uct are added to the monetary gold supply, we do not undertake to say. Opinions differ on this point. But certainly a careful study of the changes in the coin holdings of the individual banks is of special interest, and complete and careful information in regard to it will be welcome. In the main, we have to deal here only with positive statistical facts.

To the general statement of the coin holdings of the banks we add in our Materials an attempt to estimate the total monetary supply of the precious metals in the different civilized countries. Our estimate of the presumable existing quantity is 13,212,000,000 marks of gold, and 7,843,000,000 marks of silver (nominal value). France has possessed for some time, and still possesses, by far the most important monetary supply of gold and silver.

The sixth part contains a general statement, for the period from 1851 to 1885, of the rate of discount at some of the more important centers of trade, giving the highest, the lowest, and the average rates in each year. It contains also a corresponding statement of the more important rates of foreign exchange. It goes without saying that we have made special endeavors to present these data correctly, from the best sources.

The seventh and last part will perhaps excite the liveliest interest in many quarters, since it is concerned with the much discussed and difficult problem of the lowered level of the prices of commodities and the purchasing power of gold. This part has also been treated with the greatest fullness, since it was impossible to restrict the exposition to mere statistical data, but was necessary to communicate as clearly as possible the opinions and reasons of the opposing authorities and parties, and to present them without bias. We doubt whether we have succeeded in doing this in a manner that will satisfy all persons; but there has been no lack of good will.

We have given, as a rule, in the words of the writer himself, even though necessarily in a condensed quotation, the opinions put forth in recent times on this question by various authors—on the one hand by Goschen, Giffen, Herm. Schmidt, and Arendt; on the other hand, by Hansard, Nasse, a German manufacturer, and Leroy-Beaulieu. We have given opinions of our own only on one point. We thought it desirable to call attention not only to those discussions of the purchasing power of gold which rests only on the wholesale prices of the most important commodities, but also to another side of the question of the value of money. Here, also, consistently with the general character of our investigation, we have refrained from general discussions and have let the facts speak for themselves. Before presenting the general statistical statements and combinations in regard to changes in the level of prices, we communicate a series of trustworthy data in regard to the changes that took place during the years from 1851 to 1885 in the cost of average living, in the wages of laborers, in salaries, in rents of dwellings, in rents of land, etc. These indicate that in such matters the purchasing power of gold by no means has that tendency to rise which is observable in the wholesale prices of commodities.

So far as regards the investigation of the changes in the level of prices, we have no longer given in this edition, with the former detail, the tables published in England, and the index numbers connected with them, in order that we might give greater space than was possible in the first edition to the ascertainment of the actual average prices of important commodities according to the Hamburg trade statistics. We have now given the average prices for one hundred and fourteen articles (adding, as a

necessary supplement, to the hundred selected articles of the Hamburg statistics, fourteen English articles of export), and have given them not only for periods of several years, but also in detail for each year from 1851 to 1885, with the corresponding index numbers. The wish for such a completion of the statistics of prices has been urged from several sources, and the propriety of such a wish had to be admitted. We are by no means disposed to set aside the objections which can be brought forward against too implicit a reliance on the so-called index numbers (the per cents. of the comparative average prices of many commodities in different years or periods), yet we believe that in this presentation of the movement of the prices of one hundred and fourteen carefully and impartially selected important commodities, the method of index numbers supplies an approximately sound basis for conclusions as to general prices. In any case, this comprehensive and clear presentation by the Hamburg bureau of trades statistics is an important contribution to the understanding of the recent development of trade.

Although our Materials, notwithstanding all the attention and care devoted to their collection and preparation, and notwithstanding their greater volume, will not satisfy even in the present enlarged edition all demands, we may yet hope that they will be of permanent value as a source of information in these discussions. We trust they may also serve for the easier procurement in the future of needed trustworthy statistical information. It will be a comparatively easy task to gather and to use in better form, on the basis of these materials, further more important data, which will serve to complete and continue them.

Contemporaneously with this volume, and based upon it, there will appear a separate sheet entitled, "Graphic Charts on the Silver Question."

In conclusion, we beg to express our sincere thanks to those who have aided us in the friendliest manner by their many valuable communications.

AD. SOETBEER.

GÖTTINGEN, *October 1, 1886.*

PART I.

PRODUCTION OF THE PRECIOUS METALS.

PART I.

PRODUCTION OF THE PRECIOUS METALS.

PRODUCTION OF THE PRECIOUS METALS.

GENERAL STATEMENTS OF GOLD AND SILVER PRODUCTION IN THE YEARS 1493-1885.

The following general statements are based on the volume entitled, "Production of the Precious Metals and Ratio between Gold and Silver from the Discovery of America to the Present Time," by Dr. Adolph Soetbeer, Gotha, 1879, 4to, and on an essay by the same writer in the *Jahrbücher für National-Oekonomie und Statistik* (new series, Vol. II, Jena, 1881), entitled "The Statistics of the Precious Metals in 1876-1880." For the years since 1880 the most recent statements and estimates have been consulted.

The statements of weight refer to kilograms of pure silver and pure gold.

In the statements of value the kilogram of gold is reckoned as equal to 2,790 marks (3,444 $\frac{1}{2}$ francs). The kilogram of silver was reckoned in the first edition of this work, on the usual plan, as equal to 180 marks (222 $\frac{3}{4}$ francs). In this reckoning the ratio 15 $\frac{1}{4}$ to 1, regarded for a long time as normal, was used. Strictly speaking, this reckoning was justified only in the period from the beginning of this century till about the year 1870. Its application for the subsequent years was permissible so long as the average price of silver, after 1873, had not changed very much from the supposed normal price, and so long as the opinion was entertained in many quarters that the fall in the value of silver was a temporary phenomenon and that the former ratio would soon reappear. But after the depreciation of silver had again set in, and gone farther, in 1885, and the prospect for a so-called reinstatement of silver, or for the establishment of a double standard in civilized countries on the basis of the former French ratio, had disappeared, it seemed necessary to abandon the uniform reckoning of the value of silver, and to undertake the reckoning with a consideration of the actual ratio to different periods.

So far as the period from 1687 till 1886 is concerned, there is little difficulty in making such a reckoning, since, as will appear below, the average annual ratio for this period can be positively ascertained. On the other hand, in regard to the ratio during the period before 1687, we are compelled to use estimates, and therefore the statement of the value of the silver product from 1493 to 1686 in terms of present gold coins (marks or francs) can be only an approximate one. But, however great may be the possibility of error in such a new calculation, for long periods in this early time, of the value of the silver product, it must be admitted that it comes closer to the facts than the method which assumed the same ratio for all periods.

In the statements of the production in single countries, ores containing silver and gold, and exported, are not considered, but the metals extracted from such ores are ascribed to the countries where the ores were treated.

1. *Total production of the precious metals.*

Periods.	In weight.				In value.					
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.	Gold and silver.	1 kilo-gram silver.*
<i>Average of—</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>Marks.</i>	
1453-1520	5,800	47,000	11	89	16,182,000	12,220,000	57	43	28,402,000	260
1521-1544	7,100	90,200	7.4	92.6	19,976,000	22,370,000	47.2	52.8	42,346,000	248
1545-1560	8,510	211,600	2.7	97.3	23,742,000	76,965,000	23.6	76.4	100,707,000	247
1561-1580	6,840	290,500	2.2	97.8	19,083,000	72,779,000	20.8	79.2	91,862,000	243
1581-1600	7,380	418,900	1.7	98.3	20,500,000	98,800,000	17.2	82.8	119,450,000	236
1601-1620	8,520	422,900	2	98	23,771,000	96,421,000	19.8	80.2	120,192,000	228
1621-1640	8,300	393,600	2.1	97.9	23,157,000	78,326,000	22.8	77.2	101,483,000	199
1641-1660	8,770	396,300	2.3	97.7	24,468,000	70,330,000	25.8	74.2	94,798,000	192
1661-1680	9,260	337,000	2.7	97.3	25,835,000	62,682,000	29.2	70.8	88,517,000	186
1681-1700	10,765	341,000	3.1	96.9	30,634,000	63,593,000	32.1	67.9	94,227,000	186
1701-1720	12,820	355,600	3.5	96.5	35,768,000	65,075,000	35.5	64.5	100,843,000	183
1721-1740	19,680	431,200	4.2	95.8	53,233,000	79,772,000	40	60	133,005,000	185
1741-1760	24,610	533,145	4.4	95.6	68,662,000	100,764,000	40.5	59.5	169,426,000	186
1761-1780	20,705	652,740	3.1	96.9	57,767,000	124,021,000	31.8	68.2	181,788,000	180
1781-1800	17,790	879,000	2	98	49,634,000	162,626,000	23.4	76.6	212,260,000	185
1801-1810	17,778	894,150	1.9	98.1	49,600,000	160,053,000	23.7	76.3	209,653,000	179
1811-1820	11,445	510,770	2.1	97.9	31,932,000	97,339,000	24.7	75.3	129,271,000	180
1821-1830	14,216	460,560	3	97	39,663,000	81,519,000	32.7	67.3	121,182,000	177
1831-1840	20,289	596,450	3.3	96.7	56,006,000	105,572,000	34.9	65.1	162,178,000	177
1841-1850	54,759	789,415	6.6	93.4	132,777,000	137,353,000	52.7	47.3	290,130,000	176
1851-1855	199,328	886,115	18.4	81.6	556,308,000	160,387,000	77.6	22.4	716,695,000	181
1856-1860	201,750	904,990	18.2	81.8	562,899,000	164,709,000	77.4	22.6	727,608,000	182
1861-1865	185,057	1,101,150	14.4	85.6	516,326,000	199,308,000	72.1	27.9	715,634,000	181
1866-1870	195,026	1,339,085	12.7	87.3	544,139,000	239,696,000	69.4	30.6	783,835,000	179
1871-1875	173,904	1,969,425	8.1	81.9	485,207,000	344,649,000	58.5	41.5	829,856,000	175
1876-1880	172,414	2,450,252	6.6	93.4	481,045,000	382,092,000	55.7	44.3	863,107,000	156
1881-1885	149,137	2,861,709	5	95	416,098,000	428,700,000	49.3	50.7	844,858,000	150

* Reckoned in marks.

2. *Detailed statements of the production of the precious metals, 1851-1885, by weight.*

PRODUCTION OF GOLD.

Periods and years.	United States.	Australasia.	Russia.	Mexico, Colombia, Brazil.	Other countries.	Total.	Estimate of Director U. S. Mint.
<i>Average of the years—</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
1851-1855	88,800	69,573	24,730	7,710	8,575	199,388	.....
1856-1860	77,100	82,392	26,570	7,000	8,688	201,750	.....
1861-1865	66,700	77,634	24,084	7,650	8,989	185,057	.....
1866-1870	76,000	73,526	30,050	6,940	8,510	195,026	.....
1871-1875	59,500	63,129	33,380	7,240	10,655	173,904	.....
<i>In the year—</i>							
1876	60,000	49,156	33,600	7,200	16,000	165,956	.....
1877	70,300	45,045	41,000	7,100	16,000	179,445	171,453
1878	76,800	43,747	42,100	7,200	16,000	185,847	179,175
1879	58,300	43,807	42,600	7,100	16,000	107,307	163,675
1880	54,200	45,215	41,400	6,700	16,000	163,515	160,152
1881	52,200	45,564	38,500	6,600	16,000	158,864	155,016
1882	48,900	44,075	32,700	6,300	16,500	148,475	148,939
1883	45,140	40,705	35,800	6,400	16,500	144,545	141,733
1884	46,343	42,400	32,908	8,000	16,500	146,151	143,381
1885	47,850	.....	.....	.....	.....	.....	.....

2. Detailed statements of the production of the precious metals, &c —Continued.

PRODUCTION OF SILVER.

Periods and years.	Mexico.	Peru, Bolivia, Chill	United States.	Germany.	Other countries.	Total.	Estimate of Director U. S. Mint.
Average of the years—	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
1851-1855	468, 100	218, 600	8, 300	48, 900	144, 155	889, 115	.....
1856-1860	447, 800	190, 400	6, 200	61, 510	199, 080	904, 990	.....
1861-1865	473, 000	191, 100	174, 000	68, 320	194, 730	1, 101, 150	.....
1866-1870	520, 900	229, 800	301, 000	89, 125	198, 260	1, 339, 085	.....
1871-1875	601, 800	374, 700	504, 800	143, 080	285, 045	1, 909, 425	.....
In the year—							
1876	601, 000	350, 000	933, 000	139, 779	300, 000	2, 323, 779	.....
1877	634, 000	350, 000	957, 000	147, 612	300, 000	2, 388, 612	2, 174, 610
1878	644, 000	350, 000	1, 080, 376	167, 988	300, 000	2, 561, 364	2, 282, 573
1879	699, 000	350, 000	981, 000	177, 507	300, 000	2, 507, 507	2, 313, 731
1880	701, 000	350, 000	942, 987	186, 011	300, 000	2, 479, 998	2, 326, 941
1881	721, 000	350, 000	1, 034, 649	186, 990	300, 000	2, 502, 639	2, 458, 322
1882	738, 000	390, 000	1, 120, 083	214, 082	300, 000	2, 769, 065	2, 690, 573
1883	739, 000	510, 000	1, 111, 457	235, 003	300, 000	2, 895, 520	2, 812, 972
1884	785, 000	450, 000	1, 174, 205	248, 117	300, 000	2, 957, 322	2, 770, 610
1885			1, 241, 000	278, 000	(340, 000)		.....

According to the preceding figures, with estimate of the quantity for 1885, the total production of the precious metals from the close of the fifteenth century to the discovery of the Californian and Australian gold fields, and thence to the year 1885, has been:

Periods.	Gold.		Silver.	
	<i>Kilograms.</i>	<i>Per cent.</i>	<i>Kilograms.</i>	<i>Per cent.</i>
From 1493 to 1850 (358 years)	4, 752, 070	42. 7	149, 828, 750	72. 2
From 1851 to 1885 (35 years)	6, 383, 888	57. 3	57, 563, 631	27. 8
Total	11, 135, 458	100	207, 390, 381	100

The proportion by weight of gold and silver production in these great periods has been:

Periods.	Gold.	Silver.
	<i>Per cent.</i>	<i>Per cent.</i>
1493-1850	8. 1	96. 9
1851-1885	10	80

3. Detailed statements of the production of the precious metals, 1851-1885, by value.

PRODUCTION OF GOLD.

Periods and years.	United States.*	Austral- asia.*	Russia.*	Mexico, Colombia, Brazil.*	*Other countries.	Total.*	Estimate of Director U. S. mint.
Average of the years—							
1851-1855	247, 752	194, 124	68, 907	21, 511	23, 924	556, 308	.....
1856-1860	196, 137	229, 891	74, 130	19, 530	24, 240	582, 899	.....
1861-1865	186, 093	210, 617	67, 194	21, 343	25, 079	510, 326	.....
1866-1870	212, 040	205, 153	83, 840	19, 363	23, 743	544, 139	.....
1871-1875	166, 005	170, 145	93, 130	20, 200	29, 727	483, 207	.....
In the year—							
1876	167, 400	187, 155	93, 744	20, 088	44, 640	403, 027	.....
1877	196, 137	125, 684	114, 390	19, 809	44, 640	500, 600	\$113, 947, 600
1878	214, 272	122, 063	117, 459	20, 088	44, 640	518, 522	119, 023, 000
1879	162, 657	120, 837	118, 854	19, 809	44, 640	466, 797	108, 736, 000
1880	151, 218	126, 101	115, 506	18, 693	44, 640	456, 218	106, 387, 000
1881	145, 638	127, 134	107, 415	18, 414	44, 640	443, 241	103, 023, 000
1882	136, 431	122, 981	91, 233	17, 577	46, 035	414, 287	98, 985, 000
1883	125, 941	113, 575	90, 882	17, 856	46, 035	403, 289	94, 197, 000
1884	129, 297	118, 296	91, 813	22, 320	46, 035	407, 761	95, 293, 000
1885	133, 501						.....

* Figures denote 1,000 marks.

3. Detailed statements of the production of the precious metals, &c.—Continued.

PRODUCTION OF SILVER.

Periods and years.	Mexico.*	Peru, Bolivia, Chili.*	United States.*	Ger- many.*	*Other countries.	Total.*	Estimate of Director U. S. Mint.
Average of the years:							
1851-1855	84,364	89,507	1,502	8,862	26,092	160,387	-----
1856-1860	81,500	84,653	1,128	11,195	36,233	164,709	-----
1861-1865	85,613	84,589	31,494	12,360	85,246	199,803	-----
1866-1870	93,241	41,194	53,879	15,953	35,489	230,696	-----
1871-1875	105,315	65,572	98,840	25,039	49,883	344,649	-----
In the year—							
1876	94,357	54,950	146,481	21,945	47,100	364,833	-----
1877	102,708	55,700	155,034	22,913	48,600	380,955	\$81,041,000
1878	92,820	54,250	168,853	26,088	46,500	395,461	84,238,000
1879	106,248	53,200	149,112	26,981	45,600	381,141	83,735,000
1880	107,954	53,900	145,220	28,646	46,200	381,920	85,321,000
1881	110,313	58,550	158,801	28,609	45,900	390,673	102,168,000
1882	112,914	59,670	172,291	32,892	45,900	423,667	111,822,000
1883	110,850	76,500	166,719	85,250	45,000	434,328	116,923,000
1884	117,750	67,500	176,130	37,218	45,000	443,598	115,148,000
1885	-----	-----	178,704	40,082	(48,960)	-----	-----

* Figures denote 1,000 marks.

According to value, on the above figures, the total production of the precious metals for the periods from 1493-1850 and from 1851-1885 has been:

Periods.	Gold.		Silver.	
	Marks.	Per cent.	Marks.	Per cent.
1493-1850 (in 358 years)	13,258,000,000.2	42.7	29,433,000,000.8	75.4
1851-1885 (in 35 years)	17,810,000,000.1	57.8	9,597,000,000.9	24.6
Total	31,068,000,000.3	100.0	39,031,000,000.7	100.0

The proportion between gold and silver production was, by value:

Periods.	Gold.	Silver.
	Per cent.	Per cent.
1493-1850	31.1	68.9
1851-1885	65.0	35.0

If the value of the silver product were calculated, on the plan formerly in use, by considering the ratio to have been 15½-1 throughout (that is, considering the kilogram of silver to have been worth 180 marks throughout), the proportions would be:

Periods.	Gold.	Silver.
	Per cent.	Per cent.
1493-1850 (in 358 years)	33	67
1851-1885 (in 35 years)	68.2	31.8

NOTES ON THE TABLES OF THE PRODUCTION OF THE PRECIOUS METALS.

In order to prevent frequent misunderstandings in regard to the character of the statistics of the precious metals, and an incorrect judgment of the preceding tables, it seems not superfluous to bring certain general remarks to the reader's attention. One ought neither to overestimate nor to underestimate these statistics—on the one hand, not to demand more from them than, with the best wishes of their authors, they can possibly give, and, on the other hand, not to throw overboard their results with exaggerated mistrust, because of their inevitable gaps and imperfections. The need of information and of tables in regard to the production and use of gold and silver, in regard to the movement of precious metals from country to country, in regard to the presumable supply of gold and silver in the world at large and in the different countries at different times, and in regard to other similar matters, has been constantly and strongly felt in commercial nations, from the discovery of America to the present time. It has led to more or less complete and important compilations. The traditional position of the precious metals, which have been assumed without question to form the universal measure of value and medium of exchange, and the wide-spread and deep-rooted opinion that it was above all the possession of abundant supplies of them that promoted and secured the welfare of a country, inevitably caused great importance to be attached and general attention to be given to these statistical statements, rough and arbitrary as they may in part have been. From the beginning there has been a steady tendency to exaggeration, which sometimes has verged on recklessness. We need only call attention to the erroneous statements, first corrected by Ranke, about the enormous sums of the precious metals which were supposed to have come to Europe from the New World during the very first decades after the discovery of America, and to the curious notions about the early product of the Saxon silver mines. The latter are worth mentioning, not only as a matter of curiosity, but also as a proof how far exaggeration can go. Magister Albinus, citing authentic records, and moreover the authority of Philip Melancthon, "a trustworthy man, who had no liking whatsoever for things superficial," assures us in all earnestness that from 1474 till the year 1550, that is, in 76 years, there had been got from the mines of Schneeberg the sum of 12,335,520,483 heavy dollars (*unciales*), that is to say, more than the value of 123,355 tons of gold; and that, in addition, the princes had received in tithes \$2,055,920,080, and the same sum for seignorage; so that the total product of the silver mines of Schneeberg had been in that period equal to 164,473 tons of gold. The quantities so reported by Magister Albinus, reckoned on the metric system, are equivalent to 425,000,000 kilograms of silver. In fact, however, the annual product of the silver mines of Schneeberg, according to the specific accounts sent to us for the 76 years from 1474 to 1550, amounts to no more than 1,263 kilograms, whereas the above *naïve* exaggeration would indicate an average annual product of 5,500,000 kilograms, or about double the total annual product of silver in the whole world at the present time.

Although great exaggerations, such as those of former times, no longer occur, there is still much reason for mistrusting statements of gold and silver production, so long as trustworthy positive authority is not cited. As a rule, the tendency to overstatement is much more common and more tenacious than that to understatement, especially when new discoveries or unknown countries are spoken of. The presumption

of an understatement exists only where the statistics of the production of the precious metals come from the statements based on taxes, and where the producers or exporters have an immediate interest to omit a part of the product and thereby escape taxation. In countries where there is a high export tax on the precious metals the declared export, and the production calculated from it, may well be below the actual production. On the other hand, care must be taken not to make too great a statistical allowance for frauds of this kind, as seems to have been the case in the former estimates of the large production of the precious metals in Spanish America.

Every competent person who considers the statistics of the production of the precious metals in former times, must admit that a great degree of uncertainty remains even in statements brought together with great care and conscientiousness, and with repeated checks. Many figures rest only on rough estimates, with a possibility of wide errors, and others rest simply on guesses, based upon very little and very slight evidence; but unless one gives up entirely the task of getting complete and connected statistics of the precious metals, such estimates and guesses are indispensable. It is to be hoped that renewed investigations may succeed in finding further positive statistical material in the archives. Nothing is achieved by a merely negative criticism, which sets forth at great length that all statistics of the precious metals for former times are quite arbitrary and useless. On the other hand, criticism which shows, for important estimates, the greater probability of a high or of a low figure, is so much the more welcome.

Professor Lexis says with truth that in the statistics of the precious metals estimates in place of positive statements unfortunately must always play a prominent part, but that it is nevertheless possible by care and method to prevent them from being simply guesses.

We have begun, in the present publication, with the estimates which we put forward eight years ago, with all reservations, of the production of the precious metals from 1493 to 1850; estimates which since have been reprinted in many other publications. This has been done by no means because a revision of these estimates appears superfluous, or because a change might not be possible for one or another statement or combination of statements. But for the purpose of the present work we believe that it was not only permissible, but even advisable, to repeat them without other change than resulted from the new method of reckoning the value of silver, since we still consider our former estimates as upon the whole accurate. Particular changes in matters of comparatively little note, even though they would bring us perhaps nearer to probable truth, were of no great importance for our present purpose. Moreover, up to the present time, we have seen but one careful detailed examination of our estimates for the earlier period. This is the article Contributions to the Statistics of the Precious Metals, by Professor Lexis (in the *Jahrbücher für National-Oekonomie*, Vol. XXXIV, page 361). We reprint here, for comparison with our statements, the results of the independent investigations of Professor Lexis, according to which the Mexican and South American production of the precious metals should be stated up to 1801 as follows:

Periods.	Gold.	Silver.
	<i>Kilograms.</i>	<i>Kilograms.</i>
Annual average—		
1493-1600.....	830,000	13,100,000
1601-1700.....	530,000	28,000,000
1701-1800.....	1,570,000	48,500,000

This yields a total gold product of 2,420,000 kilograms of gold, and 90,200,000 kilograms of silver, whereas our statements yield for the Mexican and South American production till the close of the eighteenth century 2,490,000 kilograms gold, and 101,400,000 kilograms silver. Our higher estimate of the American silver product arose through the fact that we took for the Peruvian mines a larger amount than Lexis considered admissible.

It is to be hoped that the Spanish and South American archives will in future give further positive data, or at least information, in regard to the earlier American production. It will then be time to undertake a thorough revision of our tables, and to replace them with new ones. For the present, and for the purpose of this publication, it seems quite useless, in view of the inevitable uncertainty of all estimates, to make changes which are comparatively unimportant in relation to the totals.

For the production of the precious metals from 1851 till 1875 we have also retained our previous figures, since there seems to be no occasion for any essential change. But it may be mentioned that our estimates, as has been already stated in our earlier larger work, stand higher almost throughout than those which, based on tables of Sir Hector Hay, are usually given in English periodicals. For the sake of completeness we give a summary comparison of both estimates for the whole period from 1851 to 1875.

TABLE C.

Producing countries.	Gold.		Silver.	
	Our estimate.	Hay's estimate.	Our estimate.	Hay's estimate.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>
United States.....	1,840,500	1,775,600	5,271,500	6,118,000
Australasia.....	1,812,000	1,679,700	.....	.....
Russia.....	694,080	609,100	397,790	353,000
Mexico and South America.....	231,335	153,400	18,570,500	16,230,000
Other countries.....	177,850	91,500	6,763,745	5,675,000
Total.....	4,756,365	4,309,300	31,003,535	28,376,000

The difference is to be explained principally by the fact that Sir Hector Hay puts too low an estimate on the production in South America, and leaves almost entirely out of consideration the production in countries not specifically named, which latter, all told, forms no unimportant amount. The two estimates, while differing in other respects, yet agree in that both make the proportion of the production of gold to that of silver about the same.

Variations as considerable as those that appear in the different compilations in regard to the production of the precious metals before 1875, can no longer appear for the subsequent period. Since that time, with the depreciation of silver and the uncertainty as to future standards of value, the practical interest in the statistics of the precious metals has become immensely greater.

Variations in the different estimates inevitably continue. But as a rule they are easily explained, and balance each other on the average of several years. Very meritorious work has been done since 1879 on the recent statistics of the precious metals by the Directors of the Mint of the United States. Messrs. Horatio O. Burchard and James P. Kimball have published in their annual reports a mass of information, not only in regard to their own country, but also, on the basis of consular reports, in regard to other countries.

We turn now to the statistics of the production of the precious metals since the year 1876 in the individual countries of most importance, beginning with that great country which, in this respect, has in recent years undoubtedly taken the first place, the United States. Particular attention is given to this branch of statistics in that country, especially in the annual reports upon the Statistics of the Production of the Precious Metals in the United States, published since 1881, under supervision of the Directors of the Mint. For those years for which such reports exist, statistical statements differing from them may of course be set aside. That other statements still exist is explained by the fact that immediately at the beginning of each year Mr. Valentine, the superintendent of the great express firm of Wells, Fargo & Co., prepares a preliminary statement of the production of the precious metals in the west of the United States, which is widely published, and accepted up to the appearance of the exact official statements. It seems necessary to take note of the manner in which the gold and silver product of the Union divides itself from year to year among the different States and Territories, for extraordinary changes and shiftings take place. The energy, the technical skill, and the recklessness of the persons engaged in mining and smelting, are such that productive mines are often entirely exhausted within a short space of time, and the population employed in them turns to other, often distant, mining districts.

States and Territories.	1881.		1882.		1883.		1884.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
Alaska	15,000		150,000		300,000		200,000	
Arizona	1,080,000	7,300,000	1,065,000	7,500,000	950,000	5,200,000	930,000	4,500,000
California	18,200,000	750,000	16,800,000	845,000	14,120,000	1,460,000	13,600,000	3,000,000
Colorado	8,300,000	17,160,000	8,360,000	16,500,000	4,100,000	17,370,000	4,250,000	16,000,000
Dakota	4,000,000	70,000	8,300,000	175,000	3,200,000	150,000	3,800,000	180,000
Georgia	125,000		250,000		198,000	1,000	137,000	
Idaho	1,700,000	1,300,000	1,500,000	2,000,000	1,400,000	2,100,000	1,250,000	2,720,000
Montana	2,630,000	2,630,000	2,550,000	4,370,000	1,800,000	6,000,000	2,170,000	7,600,000
Nevada	2,250,000	7,060,000	2,000,000	6,750,000	2,520,000	5,430,000	3,500,000	5,600,000
New Mexico	185,000	280,000	150,000	1,800,000	280,000	2,845,000	300,000	3,000,000
North Carolina	115,000		190,000	25,000	167,000	8,000	157,000	3,500
Oregon	1,100,000	50,000	830,000	85,000	660,000	20,000	660,000	20,000
South Carolina	85,000		25,000		56,500	500	57,000	
Utah	145,000	6,400,000	190,000	6,800,000	140,000	5,620,000	120,000	6,800,000
Virginia	10,000		15,000		6,000		2,000	
Washington	120,000		120,000		80,000	500	85,000	1,000
Wyoming	5,000		5,000		4,000		6,000	
Other States and Territories	5,000				17,500		70,000	5,000
Total	34,700,000	43,000,000	32,500,000	46,800,000	30,000,000	40,200,000	30,800,000	48,800,000

Reduced to metric weights, the production of the precious metals of the United States, as given in the statistical abstract for 1885, was as follows:

Periods and years.	Gold.	Silver.
	Kilograms.	Kilograms.
Average of the years—		
1851-'55	88,500	1,200
1856-'60	76,800	1,800
1861-'70	71,180	241,800
1871-'80	59,500	870,600
In the year—		
1881	52,000	1,032,000
1882	48,800	1,128,200
1883	45,000	1,108,800
1884	46,200	1,171,200

For the year 1885 the gold product has been ascertained to be \$31,800,000 = 47,850 kilograms, and the silver product to be \$51,600,000 = 1,241,000 kilograms.

It would obviously carry us too far to go further into the special conditions of the production of the precious metals in the United States. In regard to them reference may be made to the already mentioned comprehensive reports of the Directors of the Mint. But, in view of the extraordinary and decisive importance of this production, we can not refrain from giving extracts from general opinions put forth recently by certain careful observers. Professor Lexis, in his essay on "The Question of Standards and the Conditions of the Production of the Precious Metals" (Schmoller's Jahrbücher, X, 1, 1886), says:

If one considers as a whole the conditions under which gold is produced in the United States, one must admit that the discovery of alluvial deposits of the extent and richness of those formerly discovered in California is no longer to be expected. Gold-washing will contribute less and less to the yearly product, even though from time to time new deposits may be found which will bring about a retardation of the rate of decrease. But this alluvial gold already forms but a comparatively small part of the total product. Much larger is the contribution which comes from the huge gravel deposits of older times, and the product from this source can undoubtedly be maintained at its present height for many decades, especially when the external difficulties are removed which have at present arisen in California from reckless hydraulic mining. The most permanent supply of gold, however, is to be expected from quartz mining; and at the same time all the indications point to a gradual and considerable rise in the product from this source. Already it is possible to use ores of low grade which formerly were not considered worth treating. It is endeavored more particularly by better metallurgy to get rid of the loss which so far has arisen through the fact that the gold contained in iron pyrites, the so-called *rusty* gold, can not be secured. It may therefore be assumed that the production of gold in the United States has at the present time reached a point at which it will maintain itself on the average for many years, and that the annual yield during the next generation is hardly likely to be less than 110, 220, 000 marks.

In regard to the production of silver in the United States, it is said in the same essay.

The official reports make it evident that the richness of the Pacific States and Territories in silver is practically inexhaustible; that it depends only on the development of the railroad system, on the progress of technical art, and on the application of labor and capital, how far the annual product shall be increased. The effect of the low price of silver is chiefly this, that many low-grade ores are not now treated, but are piled up in the hope of the discovery of cheaper methods of treating them or of higher prices of silver. New deposits are constantly discovered, which yield a profit even at the present price of silver and more than fill out the gaps in other places. The American reports note especially the increasing importance which California has gained as a producer of silver, through the discoveries in San Bernardino county.

Interest will also be taken in an essay by Dr. E. Reyer, which appeared in the January number for 1886 of the *Zeitschrift für Berg-, Hütten- und Salinen-Wesen im Preussischen Staate*, under the title of "Gold Mining in California," in which the economic side of the matter is considered. The author has personally studied the situation in California. We quote his concluding sentences:

If we compare the total production of gold in California with the number of workmen, we get interesting results. In the beginning of the decade 1850-'60, from 60,000 to 100,000 men were employed in the mines and washings of California. One man produced annually no more than between 2,000 and 4,000 marks, which meant, at daily wages between 16 to 32 marks, a large deficit. In the middle of the decade, from 1860-'70, 43,000 men were employed (of whom 7,000 were employed in quartz mining), and all together produced only 100,000,000 marks of gold. Quartz mining yielded at that time nearly 4,000 marks per year per man, the washings correspondingly less, with daily wages of from 10 to 12 marks. Again there was an industrial loss.

These facts correspond with the statements as to dividends, from which it appears that of several hundred quartz mines hardly a dozen are profitable. In the washings matters are no better; even though the dividends in particular cases are large, they

by no means cover the deficit of all the unprofitable undertakings. In fact, the production of gold here, as in Australia, has always yielded a net loss. This may be explained as follows. A few dozen mines produce the great mass of gold. They make large profits and determine the price. Their success attracts capital without end to similar undertakings; these are given up after a while, and the money is returned to other really productive branches of industry. But the temptation from the fortunate gold producers continues, and causes new capital constantly to rush to its destruction—the same phenomenon that is seen in games of chance. A few win a great deal; hundreds lose all they have. The business, on the whole, is a losing one. Everybody knows it, yet every one stakes his venture in the hope of winning the great prize. For that reason the production of gold throughout the world has always been, on the whole, unprofitable, and gold has been an article which was sold below cost price. This state of things will continue so long as the production of gold is not regulated by the state, or entirely carried on by the state, at least in the most important producing countries. The total production of gold in California maintained itself in the years after 1850, as a rule, at 200,000,000 marks per year. In the beginning of the sixties it fell rapidly to 100,000,000 marks, and in recent times to less than 50,000,000 marks. In the first years the gold was gained almost entirely out of ordinary washings. In the beginning of the fifties a production from quartz appeared of from 40,000,000 to 60,000,000 marks. Later, the great mass of gold was obtained by hydraulic mining. The production of the seventies has been obtained about half from washings and half from mines.

The decreasing gold production of California was supplemented in the sixties by that of other American States (Comstock, etc.). In recent times these sources also are being rapidly exhausted. Here, as in Australia, the production of gold is marked by a lack of permanence. This has always been the case, and is explained by the easy exhaustion of the alluvial deposits, and the small depth at which veins are profitable. In other countries, the same phenomenon has shown itself in previous centuries, but under the conditions of earlier times, when methods were more primitive, there was a longer period before exhaustion set in. In this respect gold differs essentially from the less exhaustible silver.

It is apparent from these quotations how much the views of attentive observers differ as to the continuance of an abundant supply of gold, and how difficult it is to secure a correct opinion. The final result must turn on the discovery of new and rich gold fields, and on the progress of mining skill.

In regard to the production of gold in Australasia, by which name we designate, following the example of the English, Australia itself (comprising the colonies of New South Wales, Victoria, Queensland, and West Australia), Tasmania, and New Zealand, different statements vary very much for the different years. Not unfrequently the gold production, as stated by the mining authorities for various years, is later admitted to be incorrect, and other figures are substituted. If, however, these corrections are taken into account and the averages of several years are taken, the variations in the main balance each other.

The total declared export of gold from Australia, deducting the inter-colonial export, was as follows:

Year.	Amount.		Year.	Amount.	
		Kilograms.			Kilograms.
1876.....	£5, 703, 374	42, 400	1880.....	£4, 170, 749	30, 500
1877.....	7, 295, 868	53, 400	1881.....	6, 461, 388	47, 200
1878.....	5, 567, 084	40, 800	1882.....	5, 087, 625	37, 800
1879.....	2, 408, 212	17, 600	1883.....	5, 180, 741	37, 900

The total for the eight years from 1876 to 1883 was £41,960,000, equal to 307,200 kilograms, an average of 38,400 kilograms per year. To this amount some addition must be made on account of the gold retained for local use, before we could estimate the total gold product of the Australian colonies. In the years from 1856 to 1860 the corresponding

gold export from Australia was on the average £11,424,000, equal to about 83,000 kilograms.

The preceding data we have repeated in order to show in what manner the statements, in the first edition, of the gold product in Australia were made up. We are now, however, in a position to give a full statement of this production since 1851, that is, from the beginning of the production of gold up to 1884, inclusive. This statement is entitled to take the place of previous calculations and estimates. In the sixteenth annual report, for the year 1885, of the British master of the mint, there is an Appendix E, entitled "Estimated production of gold and silver in Australia and New Zealand from the earliest records obtainable to the year 1884, inclusive. Tabulated from returns kindly furnished by the Government of each colony." This statement was prepared by the master of the mint at Melbourne, Mr. George Anderson, and was sent with the letter of introduction to the master of the mint at London, Mr. C. W. Freemantle, on the 9th of March, 1885. In the original table there is a column for the colony of West Australia, but no figures are given in that column, it being remarked that the production there is nominal. For this reason we have omitted the column. According to this statement the production was as follows:

Gold production in Australasia.

Year.	New South Wales.	New Zealand.	Queensland.	South Australia.	Tasmania.	Victoria.	Total.	
	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.	Kilos.
1851	144, 120					212, 809	357, 019	10, 179
1852	818, 751					2, 286, 535	3, 105, 286	88, 532
1853	548, 052					2, 744, 008	3, 292, 150	93, 859
1854	237, 910					2, 218, 483	2, 454, 393	70, 032
1855	171, 367					2, 819, 288	2, 990, 655	85, 284
1856	184, 600					3, 053, 744	3, 238, 344	92, 325
1857	175, 949	10, 437				3, 830, 213	3, 016, 599	86, 003
1858	286, 798	13, 534				2, 596, 231	2, 896, 563	82, 581
1859	520, 863	7, 336				2, 548, 708	2, 635, 402	70, 561
1860	384, 053	4, 538				2, 224, 009	2, 612, 660	74, 437
1861	465, 685	194, 031	(50, 000)			2, 035, 173	2, 744, 889	78, 257
1862	610, 622	410, 862	(50, 000)			1, 730, 201	2, 631, 685	80, 731
1863	466, 111	628, 450	(100, 000)			1, 694, 819	2, 839, 380	82, 376
1864	340, 267	480, 171	(100, 000)			1, 622, 447	2, 542, 885	72, 498
1865	320, 316	574, 574	(100, 000)			1, 611, 554	2, 606, 444	74, 310
1866	290, 014	783, 376	(150, 000)		848	1, 646, 948	2, 722, 636	77, 624
1867	271, 886	686, 905	(150, 000)		1, 363	1, 501, 446	2, 611, 600	74, 457
1868	235, 662	637, 474	(150, 000)		692	1, 684, 918	2, 728, 746	77, 707
1869	251, 491	614, 281	(150, 000)		137	1, 544, 756	2, 560, 065	73, 004
1870	240, 858	544, 880	(180, 000)		964	1, 304, 304	2, 211, 006	64, 746
1871	323, 609	730, 029	(180, 000)		6, 005	1, 368, 942	2, 608, 585	74, 371
1872	425, 129	445, 379	(180, 000)	2, 494	6, 969	1, 531, 377	2, 391, 339	68, 177
1873	361, 784	505, 337	(200, 000)	98	4, 061	1, 170, 397	2, 242, 277	63, 927
1874	270, 823	376, 388	(200, 000)	8, 351	4, 650	1, 097, 643	1, 957, 855	55, 819
1875	230, 883	355, 322	(200, 000)	13, 742	3, 013	1, 068, 417	1, 871, 374	53, 853
1876	167, 412	322, 016	(230, 000)	9, 857	11, 107	963, 760	1, 724, 152	49, 156
1877	124, 111	371, 685	(250, 016)	11, 811	5, 777	899, 653	1, 579, 653	45, 045
1878	119, 685	310, 486	310, 247	10, 745	25, 249	758, 040	1, 534, 432	43, 747
1879	109, 650	287, 464	288, 556	14, 250	60, 155	758, 947	1, 519, 022	43, 307
1880	118, 600	305, 248	267, 136	13, 245	52, 595	829, 121	1, 535, 945	45, 215
1881	140, 627	270, 561	270, 945	16, 975	56, 698	833, 378	1, 598, 179	45, 564
1882	140, 469	251, 204	224, 893	15, 668	49, 122	864, 610	1, 545, 966	44, 675
1883	123, 806	248, 374	212, 783	15, 938	46, 577	780, 253	1, 427, 731	40, 705
1884	107, 199	229, 946	307, 804	21, 454	42, 339	778, 618	1, 437, 390	42, 405
Total	9, 596, 642	10, 552, 279	4, 529, 280	154, 628	378, 413	53, 023, 985	78, 235, 227	2, 230, 489

Professor Lexis estimates the yield of gold in Australia (apart from the production in North Australia) as follows :

Year.	Ounces.	Marks.
1882.....	1,508,757	125,341,000
1883.....	1,448,830	115,754,000
1884.....	1,507,283	120,583,000

He adds :

From 500,000 to 550,000 ounces are now produced from alluvial deposits, and between 950,000 and 1,000,000 ounces from quartz mines. In the first class the official statistics place hydraulic and other mines in the older deposits, which are likely to become more numerous in the future and to yield for a period without visible limit a considerable amount of gold. In the same way quartz mining is capable of increasing development, as the settlement of the country progresses and the normal growth of population and the increase of railroads takes place. Metallurgic improvements will, moreover, render it possible to secure from the ores a considerably higher per cent. of gold than was formerly possible. It is, therefore, not optimistic if an annual production of from 100,000,000 to 110,000,000 marks is expected from the Australian mines.

For the year 1885 complete reports of the production of gold in Australasia are not yet at hand. In Victoria the production, according to official reports, was 735,218 ounces, against 778,617 ounces in the year 1884; but this decrease may be covered by an increased yield in Queensland. Here, for instance, the gold field of Charters Towers yielded in 1885 134,650 ounces, as against 106,286 ounces in 1884, and, as the other reports from this colony are also favorable, we may estimate the gold production in Queensland for 1885 at about 340,000 ounces.

New gold fields have been recently discovered in West Australia, at Kimberley, in the northwestern part of the colony, which are said to be rich in alluvial gold. For the present they are not easily accessible, and up to date (August, 1886) no considerable yield from them has been secured.

There has been practically no production of silver in Australia up to the present. What silver has been obtained there has been derived by separation from gold. Mr. Anderson, in the report mentioned above, has given separate figures for the production of silver since 1863 in New South Wales, Victoria, and New Zealand, of which the totals are as follows :

	Ounces.
1863-1870.....	81,159
1871-1875.....	597,712
1876-1880.....	562,020
1881.....	97,096
1882.....	64,655
1883.....	116,012
1884.....	145,644

On the average of the four years, 1881-1884, this production of silver has been only 105,852 ounces per year, equal to about 3,000 kilograms fine. In the years 1883 and 1884 there were exported from Queensland silver and lead of the value of £101,519. The mining of silver in Queensland, as well as in New South Wales, seems to have begun on a larger scale only in 1885-1886, at Silver Fields, in North Queensland, at Sunny Corners, Silvertown, in the Barrier Ranges, etc. Whether the large expectations entertained in regard to these new silver mines will be realized, remains to be seen.

It must, in conclusion, be said that the Chinese employed in the alluvial mines, especially in Queensland, carry to China a large part of

the gold gained by them without declaring it. This was formerly the case in California also. How large this exportation of gold by the Chinese may be, is difficult to estimate; but it is certain that it does not appear in the official statistics, and that the sum total can not be inconsiderable.

In regard to the production of gold in Russia, it is not to be expected that exact statements, corresponding with each other, should exist, even if we look aside from the amounts fraudulently withheld from publication. The gold producers in Russia have always been obliged to turn over the gold produced by them to the authorities at fixed prices. For some time these purchases have been met by bills drawn at six months date on the Imperial mint at St. Petersburg. On the whole, there is, in essentials, an agreement between the different official statements of the yield of gold in Russia. But if the figures for individual years are considered, more or less considerable discrepancies appear. All statements are said to rest on the official data. The differences may in part be explained by the fact that some statements refer to gold fine, that others refer to standard gold ($\frac{1}{10}$ fine), while still others refer to the so-called "Schlich-gold," or "Legatur" gold, such as is turned in by the producers.

Below we give, first, the statements in regard to the earlier developments of Russian gold production, which J. Von Bock published in his statement of Russian production for the seven quinquennial periods between 1815 and 1849. Then, for the individual years from 1850 to 1871, we give the figures of Professor Lexis, in his essay on the precious metals in the foreign trade of Russia, printed in the *Tübinger Zeitschrift für die Gesamte Staatswissenschaft*, 1878. Lastly, for the years from 1872 to 1875, we give the official statements as sent to us direct from St. Petersburg:

Years.	Pnd.	Pounds.
Average of—		
1815-1819.....	15	32
1820-1824.....	83	21
1825-1829.....	266	9
1830-1834.....	373	28
1835-1839.....	443	12
1840-1844.....	928	37
1845-1849.....	1,589	31
Years:		
1850.....	1,454	.....
1851.....	1,474	.....
1852.....	1,367	.....
1853.....	1,463	.....
1854.....	1,596	.....
1855.....	1,649	.....
1856.....	1,655	.....
1857.....	1,734	.....
1858.....	1,688	.....
1859.....	1,542	.....
1860.....	1,491	.....
1861.....	1,456	.....
1862.....	1,461	.....
1863.....	1,460	.....
1864.....	1,398	.....
1865.....	1,578	.....
1866.....	1,659	.....
1867.....	1,650	.....
1868.....	1,711	.....
1869.....	2,007	.....
1870.....	2,157	.....
1871.....	2,400	.....
1872.....	2,368	9
1873.....	2,024	39
1874.....	2,028	5
1875.....	1,966	7

Based on these, and on certain other statements, was the following estimate, already published by us in earlier writings, of the gold production of Russia from 1801 to 1875 :

Years.	Kilograms.	Marks.
1801-1810.....	165	460,000
1811-1820.....	315	879,000
1821-1830.....	3,375	9,416,000
1831-1840.....	7,050	19,689,000
1841-1850.....	23,515	62,817,000
1851-1855.....	24,780	68,997,000
1856-1860.....	26,570	74,130,000
1861-1865.....	24,065	67,197,000
1866-1870.....	30,050	83,832,000
1871-1875.....	33,380	93,180,000

There seems to be no reasons for attempting to change these estimates; but it should be said that the production of gold in Russia was probably considerably larger than indicated by the official statements, especially in earlier times, when there was a not inconsiderable tax on the gold produced on private account.

Our estimate of the Russian gold production from 1876 to 1885 has already been given above in our general table. We add at this point only such other official statements as have come to hand. In the Russian Review, 1883, the yield of gold in Russia for the years 1876 to 1881 is given as follows by Striedter :

Year.	Pud.	Pounds.	Solotnik.	Kilograms.
1876.....	2,054	8	48	33,649
1877.....	2,502	6	57	40,986
1878.....	2,572	4	33	42,132
1879.....	2,631	29	53	43,109
1880.....	2,641	29	91	43,272

In the Statistical and other Scientific Contributions from Russia, fifteenth year, 1882, K. Skalkowsky mentions that at the close of 1879 the number of private gold mines in eastern Siberia was 1,522, in western Siberia 291, in the Ural 1,233. The yield of chemically pure gold was 2,514 pud, 61 solotrik, 38 doli. According to this statement, and a statement for the same sources giving the yield of Schlich-gold as 2,631 pud 30 pounds, the fineness of the latter gold may be assumed at 0.955.

In the annual reports of the director of the mint of the United States the gold production of Russia is given as follows, official data being cited as authority here also :

Year.	Dollars.	Kilograms, fine.
1876.....	22,862,309	33,650
1877.....	27,240,081	41,000
1878.....	28,000,624	42,100
1879.....	28,650,449	43,100
1880.....	28,760,800	43,300
1881.....	24,431,048	36,800
1882.....	23,867,935	35,912
1884.....	{ 2,009 110 }	{ 32,912 }

* Pud.

† Pounds.

Lastly, Mr. Ottomar Haupt, in his Monetary History of our Times, Paris, 1886, has given the following statement, again based on official statements made to him from St. Petersburg. Quantities indicate gold fine:

Year.	Pud, fine.	Rubles.
1868	1, 685	22, 320, 000
1869	1, 542	21, 036, 000
1870	1, 957	26, 711, 000
1871	2, 187	29, 872, 000
1872	2, 127	29, 083, 000
1873	2, 090	28, 546, 000
1874	1, 799	24, 562, 000
1875	1, 889	25, 792, 000
1876	2, 602	35, 638, 000
1877	2, 249	30, 716, 000
1878	2, 329	31, 799, 000
1879	2, 319	31, 674, 000
1880	2, 355	32, 163, 000
1881	1, 052	14, 374, 000
1882	1, 239	16, 919, 000
1883	1, 796	24, 523, 000
1884	2, 350	32, 000, 000
1885	2, 327	31, 700, 000

In this last table there are remarkable sudden variations of great amount, in successive years, as for instance in the years 1881 and 1882. Looking at the previous five years, we can hardly believe that such extraordinary changes took place in the actual production of gold, and the variations in the figures are probably to be explained by the fact that the delivery and recording of quantities of gold were occasionally delayed, and carried on to a later year. In the other statement of Russian gold production these variations do not appear. Possibly the discrepancies may rest on the circumstance that some statements are for calendar years, others for fiscal years. Occasionally we find figures that are quite inexplicable. Thus it is said in an essay by Mr. Ivanow, published in the Journal de St. Petersburg and reprinted in the Journal des Économistes for September, 1883, at page 414: "The production of gold in Russia in the year 1882 gives to our country the first place after the United States, putting it before Australia. We extracted in 1882 57,000,000 rubles gold, while Australia extracted no more than 50,000,000." The official figures communicated to Mr. Haupt from St. Petersburg give the gold production for 1881 at 14,374,000 rubles, only a quarter of this estimate in the Journal de St. Petersburg. The sum of 57,000,000 rubles gold is equivalent to 66,000 kilograms fine, which is double the quantity given in our general table as the presumable actual production of gold in Russia for 1882. Notwithstanding incomprehensible exaggerations of this kind, the above-cited essay by Mr. Ivanow has many sound and noteworthy remarks, especially in what he says of the insufficient plant, the primitive machinery, and the reckless methods, of the smaller mining companies of Siberia, and also in what he says about the widespread frauds in the delivery of the gold. Under a better system Siberia would probably yield for a long time in the future a great deal of gold, without there being any danger of exhaustion of the gold fields. But, as already has been noted, the variations in the different statistical statements are not of decisive importance if periods of several years be considered.

In regard to the character and future of the Russian production of gold, opinions vary greatly. As has been pointed out, it is carried on with poor technical means, little capital is employed on a large scale, and the condition of the workmen is abominable. Criminals and vaga-

bonds form the bulk of the men employed in the washings, and theft and embezzlement constantly occur. If these evils were remedied, the production of gold in Russia might increase considerably. Striedter, in the *Russian Review* for 1883, Nos. 8 and 9, states that by far the largest part of the Russian production is carried on by washing in sand deposits, and that comparatively little true mining is carried on. The increase of the Russian gold production is to be explained by the fact that new fields are constantly hunted up, since the yield of gold from the sand and gravel deposits, originally high, diminishes everywhere, except in the district of Olekminsk. It has been necessary to push constantly farther eastward. During the decade from 1851 to 1860 eastern Siberia yielded two-thirds of the total Russian product of gold, and since 1871 this proportion has still further risen. In recent years attention has been directed to new fields in the Amur district; but there the limit of new discoveries would be reached. Striedter concludes that the increase of gold production which arose from the sand deposits of Russia will before long have reached its highest point. On the other hand, it has been said that although a continuous increase in the Russian gold production is not to be expected, on the other hand increasing knowledge of the geological conditions of Siberia and the Amur country, and improvement of industrial conditions, especially in the means of communication and in technical apparatus, may lead to a profitable production of gold for many years in the future, the more so if production in the future is carried on more by true mining.

An English traveler, Mr. H. Lansdell, in his *Journey through Siberia*, 1882, says:

The yield of gold in some valleys in Amur is almost fabulous. In Albazin, which belongs to the upper Amur Company, I was told that in the ten years from 1869 to 1878 there had been produced 150 pud gold per year, which, at the rate of £2,000 per pud, gives a total sum of £3,000,000. On the river Vitim between 300 and 400 pud were produced in the summer of 1878. In eastern Siberia, in the years from 1833 to 1870, the exportation of gold was about 30,000 pud, whose production employed in some years more than 30,000 workmen.

Since 1881 Russian fugitives have opened a new and rich yield of gold in the Chinese Amur country, in the neighborhood of the station Amasarsk, on the river Sheltuga. In the first year 500 men were at work here; in the second year there were already 3,000. The year 1883, when 7,000 persons were at work in the new gold fields, was the culminating time; since then the number has gone down again to 3,000. The gold fields are about 7 werst square. The sand containing the gold is very carelessly washed, and from 100 pud sand from 2 to 10 solotnik gold are obtained. Most of the men net nothing, since all articles of food are extraordinarily dear. In former times the Crown bought gold through its officers, at the rate of 3 rubles 40 copecs per solotnik. But this was soon discontinued, as the officers made profitable contracts with the Chinese and turned over very little gold to the Crown. The recent increase in the export of gold from Chinese ports (3,186,461 Shanghai taels in 1885) is probably connected with the production of gold in the Amur country.

Professor Lexis, who has for some time given special attention to the Russian production of the precious metals, is of the opinion (see *Schmoller's Jahrb.*, X, 1, 1886) that "Russia for a number of decades will continue to add on the average 60,000,000 to 70,000,000 marks annually to the gold product of the world."

In regard to the production of silver in Russia, for which separate statistics are generally given in connection with the statistics of gold, we have inserted no figures, since the production of that metal in Russia, as compared with the total production, has always been quite insignificant.

nificant. In the years from 1876 till 1884 the annual average production of silver in Russia was less than 12,000 kilograms.

As regards Mexico, the estimates of the production of the precious metals have been based from the outset on the coinage of that country. But it has always been known that the actual production must have been considerably in excess of the sums indicated in this way, since there has been a secret export of uncoined precious metals and a consumption within Mexico in the arts. From time to time exportation in bars has been permitted by law, of which the amount has then been recorded. The coinage has been in the fiscal years ending June 30, as follows:

Years ending June 30—	Silver.		Gold.	
	<i>Pesos.</i>	<i>Kilograms, fine.</i>	<i>Pesos.</i>	<i>Kilograms, fine.</i>
Average of—				
1868-1875.....	17,552,000	428,800	850,700	1,259
1876.....	19,454,034	475,300	809,402	1,198
1877.....	21,415,128	523,200	693,750	1,030
1878.....	22,084,203	539,600	691,998	1,024
1879.....	22,162,987	541,500	658,206	974
1880.....	24,018,529	580,800	521,826	772
1881.....	24,617,394	601,500	492,068	728
1882.....	25,140,261	614,400	452,530	670
1883.....	24,083,923	588,400	407,600	603
1884.....	25,877,378	620,000	328,698	487
1885.....	25,840,725	631,400	423,000	626

According to the official statements, based on the mint records, the total coinage in Mexican mints during the three hundred and forty-nine years from 1537 till the close of June, 1885, amounted to:

	<i>Pesos.</i>	<i>Kilograms, fine.</i>
Silver.....	3,080,338,595	75,506,200
Gold.....	119,915,525	177,484

The actual production of the precious metals in Mexico is, as already remarked, much larger than this amount. In these statistics no account is taken of the quantities of gold and silver which are exported in bars without being declared at the custom-houses or elsewhere. Such an export has more particularly taken place from the ports on the western coast. The export duties, 5 per cent. for silver and one-half per cent. for gold, were not removed until November 1, 1882. In recent times a considerable export, not declared, is said to take place over the northern boundary. An addition must be made for all this export not reckoned in the official statistics, and moreover a greater addition for gold than for silver. A difficulty also arises in inserting the Mexican production in general tables, from the fact that in Mexico the coinage and the export are given for fiscal years instead of calendar years. This may serve to explain many divergencies in different years. In a report of the Mexican ministry of trade of the 18th of August, 1880, there is given, by way of exception, a statement of the production and coinage for the calendar year 1875, as follows:

	Ascertained production.		Coinage.	
	<i>Pesos.</i>	<i>Kilograms.</i>	<i>Pesos.</i>	<i>Kilograms.</i>
Gold.....	989,161	1,464	589,161	872
Silver.....	25,167,763	615,300	23,667,763	578,700

For the fiscal year 1884 the ascertained production (coinage and export of bars) is given at 31,548,478 pesos silver and 1,183,137 pesos gold.

The declared export of precious metals of domestic production from Mexico was as follows:

	1881-1882.	1882-1883.	1883-1884.
	<i>Pesos.</i>	<i>Pesos.</i>	<i>Pesos.</i>
Gold in bars.....	420, 181	548, 039	604, 653
Gold in coins.....	760, 683	831, 708	200, 816
Total.....	1, 180, 814	879, 747	807, 469
Silver in bars.....	8, 040, 079	4, 778, 928	5, 311, 810
Silver in coins.....	16, 783, 817	22, 909, 584	25, 909, 576
Total.....	19, 823, 896	27, 743, 512	31, 311, 186

We cannot add to the silver production of different countries the silver ores exported from them, since, as has already been stated, the quantities of gold or silver obtained in this manner are reckoned as part of the production of those countries where the ores are treated.

If the production of the precious metals in Mexico has maintained itself, and even increased somewhat, this is to be ascribed, apart from the effect of new railroads and of the greater cheapness of quicksilver, chiefly to the greater energy with which mining has been taken up. In a German consular report of 1882 it is said:

In the northern border States mining for the precious metals in the rich Mexican Cordilleras attracts numerous speculators, and an immigration of labor and capital (and of adventurers, too) is taking place on a scale that reminds one of the history of California and Nevada. In Sonora almost all the profitable mines have gone into the hands of American companies. This movement is now spreading to the States of Sinaloa, Chihuahua, and Durango. Every mine owner is on the watch for an American company which is to buy him out.

In the report of the German consul in Oaxaca for the year 1885 it is said:

Several large undertakings in different mining districts have brought about, for the year 1884, an increase in the production of silver of about 20 per cent. as compared with previous years. The governments here have endeavored to attract foreign capital by special privileges to this industry. These endeavors, however, have had little success in face of the present unfavorable state of the money market. By far the greater part of the numerous and productive gold and silver mines are abandoned, partly from a lack of enterprise and of the necessary machinery, partly because of the incomplete and primitive methods, which prevent a profitable handling of poorer ores.

The yearly reports of the Director of the Mint at Washington estimate the production of the precious metals in Mexico as follows:

Years.	Silver.	Gold.
	<i>Kilograms.</i>	<i>Kilograms.</i>
1878.....	650, 000	1, 500
1879.....	605, 469	1, 488
1881.....	685, 918	1, 292
1882.....	708, 508	1, 409
1883.....	711, 847	1, 438
1884.....	655, 868	1, 780

Our estimate of the Mexican production of the precious metals is the result of a revision of earlier statements, with use of further material,

and it varies considerably from our former statements for individual years. Our estimates since 1878 are higher than those of Burchard.

The depreciation of silver, which is most felt in Mexico, since silver is Mexico's chief article of export, has not as yet brought about, on the whole, any diminution in the production of silver. The great improvements in transportation and in methods of production in recent times have made production more easy. The fall in the price of silver is said sometimes to cause even an increase of production, since the mine holders endeavor to make up for the lower price by producing larger quantities.

We print below statements in regard to the production of the precious metals in the United States of Colombia (formerly called New Granada). We are enabled to make these statements through the kindness of the Secretary of State for Foreign Affairs, Mr. Vincente Restrepo, who has given this subject his attention for twenty-eight years, and has recently published a comprehensive study on it, entitled *A Study on the Gold and Silver Mines of Colombia*, printed in the *Annals of Public Instruction of the United States of Colombia*, No. 39, March, 1884.

Restrepo estimates the total production of the precious metals in Colombia since its conquest, 1537, up to the year 1882, as follows:

Years.	Pesos.	Of which gold, kilograms.
1537-1600	50,000,000	60,000
1601-1700	170,000,000	236,600
1701-1800	194,000,000	270,000
1801-1882	216,000,000	300,000
1537-1882	630,000,000	876,600

Of this total there were, approximately, 602,000,000 pesos gold and 28,000,000 pesos silver. This production was divided among the different provinces as follows:

Province.	Pesos.	Province.	Pesos.
Antioquia	252,000,000	Santander	13,000,000
Cauca	242,000,000	Bolívar	6,000,000
Panama	74,000,000	Cundinamarca	2,500,000
Tolima	40,000,000	Boyacá y Magdalena	500,000

Mr. Restrepo believes that the estimate of the production of gold in Colombia, as given in our volume on the *Production of the Precious Metals*, Gotha, 1879, was too high; on the other hand, he considers Humboldt's estimate (up to 1803) too low.

Since 1851 the production of the precious metals has averaged as follows per year:

Years.	Pesos.	Kilograms, gold (about).
1851-1860	2,532,655	3,500
1860-1869	2,101,000	2,900
1869-1879	2,615,000	3,600
1879-1881	3,198,000	4,500
1881-1882	4,816,000	6,000

The customs statements of the exportation of gold and silver from the ports of Colombia are arranged, it is true, in seven separate columns, but the individual statements for different years run into each other so much and make it so impossible to see any system in the classification, that we have not been able to make use of it for statistical purposes. We are therefore compelled to limit ourselves to a presentation of the total declared export of the precious metals. From this it is possible, however, to reach conclusions in regard to the changes in export and production which have taken place from year to year.

Declared export of precious metals from Colombia.

Fiscal years.	Pesos.	Fiscal years.	Pesos.
1869-1870.....	2, 067, 314	1879-1880.....	2, 794, 505
1870-1871.....	1, 896, 674	1880-1881.....	2, 674, 913
1871-1872.....	1, 281, 948	1881-1882.....	3, 351, 780
1872-1873.....	2, 643, 708	1882-1883.....	3, 735, 476
1873-1874.....	3, 095, 676	1883-1884.....	3, 035, 236
1874-1875.....	3, 160, 185	Average of the years:	
1875-1876.....	3, 295, 098	1869-1870 to 1872-1874.....	2, 197, 064
1876-1877.....	1, 796, 401	1874-1875 to 1878-1879.....	3, 080, 250
1877-1878.....	3, 688, 246	1879-1880 to 1883-1884.....	3, 338, 372
1878-1879.....	3, 461, 321		

In a letter of 29th of April, 1886, which accompanies these figures, attention is called to the fact that they are not sufficiently clear in their arrangement, and that they are moreover incomplete, since that gold which is gained (though not in considerable quantity) in Panama, as well as in Choco and Barbacoas, is not indicated by the customs figures. During the fiscal year 1884-'85 the production of the precious metals probably decreased about 20 per cent. because of the civil war then prevailing.

That part of Colombia which lies between the Pacific ocean and the river Magdalena, or the central Cordillera chain, and between the first and ninth degree of latitude, containing an area of about 250,000 square kilometers, is extraordinarily rich in gold. It contains, moreover, treasures of silver ores, and of platinum-bearing alluvium. A great increase of the Colombian production of the precious metals may therefore be expected as soon as use is made of modern methods, and especially of chemical methods, which hitherto have been used to but a slight extent. As much as 50 per cent. of the gold and silver is said to be lost at present. It is added:

A number of English companies are carrying on quartz mining with more or less success. The Tolima Company and the Frontino and Bolivia Companies pay satisfactory dividends. The Organos Company and the Orita Company still maintain hopes of success. According to all the indications we may expect for the future an annual gold product of about 3,000,000 pesos from Colombia.

The German traveler Thieleman, who took a look some years ago at the gold washings on the coast of Colombia, mentions that they are worked almost entirely by negroes, who produce no more than their very simple subsistence requires. He reported the annual product of the gold washings at about 2,500,000 pesos.

In a report of the legation of the United States in Bogota the yield for the year 1882 is estimated somewhat higher, namely, at 3,856,000 pesos gold, and 756,000 pesos silver.

In the yearly reports of the American Director of the Mint the production of gold in Colombia was formerly put at only 3,500 kilograms,

but for 1881 it is given at 6,019 kilograms, and for 1882 at 5,802 kilograms.

From a communication from Professor Lexis we take the following statements:

The yearly yield of the precious metals in Colombia, which was from 1863 to 1869 only \$2,615,000, reached from 1869 to 1881 \$3,198,000, and amounted in 1882 to \$4,317,000, of which \$3,566,000 was gold or gold-yielding silver.

In 1885 the revolutionary movements checked production, which, however, is likely in the future to reach its former extension. If we were to make an estimate for 1886 from the monthly notices which appear here and there in the London Mining Journal, there would result for the Frontino and Bolivia Gold Mining Company about 15,000 ounces; for the Organos Company, 3,200 ounces; the Orita Company, 1,000 ounces; the Colombia Hydraulic Company, 800 ounces. The Tolima Company produced between 90,000 and 100,000 pesos gold-yielding silver. In the smelting works of Sabaletas there were produced from the ores of the Sancudo mine about 300,000 pesos silver, containing 6 to 8 per cent. of gold. The silver mines of the district Marmato yield annually 480,000 pesos silver, with about one-half per cent. gold. The sand of all the rivers contains gold, especially that of the Cauca river. Hitherto this gold has been washed by the natives in the most primitive manner, with a monthly yield in the dry season of about 5,000 pesos. This gold contains 24 to 33 per cent. of its own weight in silver. The most gold comes from the gold mines of the Marmato district, which have been worked for more than a century, and have yet given no signs of exhaustion. The Western Andes Company, producing silver, declared in 1885 dividends of £6,043.

All appearances indicate that the production of the precious metals in Colombia will show an increase rather than a diminution, so soon as their working is better carried on.

The production which in recent times has developed itself in the Venezuelan province of Guiana, as well as in French and in Dutch Guiana, has hitherto received too little attention. We take the following notice from the reports from Caracas in the German Handelsarchiv. The declared export of gold from Guiana is estimated for the period from 1867 to the close of 1883 at 1,292,594 ounces, and was in value more than 120,000,000 Bolivares (francs). In the single years the export was:

	Ounces.
1876	86,530
1877	100,989
1878	95,205
1879	107,723
1880	116,799
1881	111,778
1882	125,546
1883	168,443

By far the greatest part of the Venezuelan production of gold comes from the Callao mine. This mine yielded in the year 1881 alone 72,255 ounces of gold from 24,978 tons of rock, having a value of nearly 7,000,000 Bolivares. It divided in dividends 1,800,000 Bolivares. In 1882 there were produced 22,405 tons of rock, yielding 105,400 ounces of gold, with a value of 10,150,000 Bolivares. In the year 1885 this same mine yielded nearly 11,000,000 Bolivares (equal to 3,184 kilograms fine) of gold, there being on the average 2.42 ounces to the ton of rock; and 4,572,000 Bolivares were divided as dividends. The total gross product from 1871 to 1885 amounted to 25,400 kilograms fine, or 87,688,953 Bolivares.

The other mining concerns of Venezuela produce at a loss, so far as is known, yet produce a considerable quantity of gold, and do not give up hopes of better results. In the year 1885 the New Chili mine produced 25,000 ounces of gold out of 30,000 tons of quartz. The gross product of the New Potosi mine was 4,600 ounces, against 8,650 ounces in the year 1884. On the whole, Professor Lexis is of the opinion that the gold product of Venezuela for 1884 and 1885 may be put at 5,500 kilograms per year. Since much gold is exported from Venezuela without being declared, and since there is a considerable product of gold in French and Dutch Guiana, the total gold product in recent years in Guiana may be accepted as exceeding 6,000 kilograms per year.

In the Mining Statistics of France for 1881 a production of gold of 1,875.5 kilograms, with a value of 6,549,100 francs, is mentioned, which must refer to the production of French Guiana. A consular report from Cayenne estimates that as early as 1876 the export of gold was 1,858 kilograms. The export of gold from Surinam, according to the customs records, amounted in 1884 to £108,808 in value, and in 1885 to £110,981. It is supposed that in addition 5 to 10 per cent. of these amounts were exported secretly in order to escape the export duty.

There is unfortunately great uncertainty as to the production of the precious metals in Peru, Bolivia, and Chili, and there are consequently great differences in the estimates for these countries. From the years from 1871 to 1875 we had estimated their product at about 4,480 kilograms gold, and 374,700 kilograms silver, and had assumed for subsequent years the same amount. Great interest attaches to good estimates, and even to any partial specific data which give us something to start with.

A consular report from Lima for 1878 estimated the total product of silver in Peru alone at 345,000 marks (nearly 80,000 kilograms).

According to the reports of the Director of the Mining School at Lima, the silver smelted in Peru in the year 1884 amounted to 50,333 kilograms, of which receipts at the Lima mint formed 43,420 kilograms, and 6,912 kilograms were exported in bars.

According to the official report in the Boletín de Minas, Lima, July 24, 1886, the production of silver in Peru was in 1884 about 72,700 kilograms fine, and in 1885, 84,000 kilograms fine. In both these sums it should be said that the silver supposed to be contained in exported ores is included.

The silver production in Cerro de Pasco, the most important point of production, was :

	Kilograms.
1879	38,913
1880	32,500
1881	24,210
1882	24,026
1883	27,561
1884	28,957

In a report of the German consulate in Cochabamba for the year 1879 it is estimated that the silver production of Bolivia, exclusive of the coast region, is 600,000 marcos (138,050 kilograms) annually. In the report for 1881 it is said :

The mining of silver steadily increases. The mines have all struck good rich ores, and show a considerable product. The larger companies are said even to divide 50 per cent. dividends. These favorable results have encouraged a formation of a number of new companies for working with a sufficient capital abandoned mines, as well as for the discovery of new mines. A profitable future is prophesied for these new undertakings.

This view is confirmed in a report of the American embassy from La Paz of February 20, 1884. In this report it is said that in the year 1882 there was exported from Bolivia silver, coined and uncoined, to the value of 20,000,000 Bolivares, equal to about 450,000 kilograms of fine silver. The Government had farmed the tax on silver mines, and therefore it was the interest of the farmers and of the producers to understate the produce of the mines as much as possible. Inquiries from persons interested in silver mines and qualified to judge indicated that the product of the Peruvian mines for 1883 was to be estimated at 15,900,000 ounces (460,000 kilograms). The use of new machines and methods would still further increase this product.

In regard to the production of the precious metals in Chili the following information was given by the Government of Chili in answer to questions put by the embassy of the United States. It was said that, as no statistics were at hand giving an exact answer to the question, information could be given only in regard to what was bought by the mint and what was declared for export. From these data some conclusion could be reached as to the probable extent of the production.

	1880.	1882.
	<i>Peos.</i>	<i>Peos.</i>
Gold bought by the mint	107,477	139,965
Gold exported	21,393	22,796
Total in gold	128,870	162,761
Silver bought by the mint	1,709,007	1,466,812
Silver exported	3,872,740	3,857,851
Total in silver	5,581,747	5,324,663

This yields a probable product by weight as follows :

	1880.	1882.
	<i>Kilograms.</i>	<i>Kilograms.</i>
Gold	178	223
Silver	114,800	119,800

The export of silver from Antofagasta was as follows :

Year.	Spanish marks.	Year.	Spanish marks.
1878	357,300	1881	224,500
1879	302,500	1882	276,700
1880	239,600	1883	224,400

That is an average of 62,300 kilograms for the six years.

In the reports of the Director of the Mint at Washington, the yearly production of silver in Bolivia, Peru, and Chili, taken together, was put until 1880 at 250,000 kilograms. But this estimate was increased for 1882 to 392,783 kilograms, and for 1883 to 513,031 kilograms. Other confirmatory reports state that in 1883 there was an unusual production of silver in Bolivia (a bonanza), which, however, has not proved permanent. In individual years since 1880 a particularly large export of silver has sometimes taken place, which has been the result of the excessive issue

of irredeemable paper money. This has probably driven abroad the greater part of the coins in circulation. We believe that it would be near the truth to put the silver production of Peru, Bolivia, and Chili, taken together, from 1876 to 1885 at 425,000 kilograms per year. In some years the total may have been raised by an extraordinary yield from particular mines to 500,000 kilograms; in other years may have gone down to about 350,000 kilograms. In regard to the production of gold in these countries in recent times, it seems to us an underestimation when it is put at only 300 to 350 kilograms per year.

The greater part of the Mexican and South American product of the precious metals goes first to England, and the import of gold and silver into England from these countries therefore serves to indicate approximately their production. According to the customs records there were imported into England from Mexico and South America (exclusive of Brazil) precious metals in bars and in non-British coins as follows:

Years.	Gold.	Silver.
Average of—	Ounces.	Ounces.
1876-1880.....	222, 300	14, 255, 000
1881.....	140, 000	9, 016, 000
1882.....	122, 600	15, 089, 000
1883.....	150, 000	17, 711, 000
1884.....	170, 600	20, 934, 000
1885.....	212, 600	18, 067, 000

Taking an average of the five years, 1881-1885, we get an annual import from Mexico, Colombia, Guiana, Peru, Bolivia, and Chili of 4,948 kilograms gold and 1,257,000 kilograms silver. These figures can be made to agree with the estimates we have given of the total product, and the general correspondence of such independent statements indicates that we can get near enough to the truth.

The gold product of Brazil, formerly so large, has been comparatively small for several decades. Only the St. John del Rey Mining Company can show considerable operations and some profit. The Morro Velho mine of this company produced, according to the published reports, the following amounts of gold:

Years.	Oitavas.	Ounces Troy.	Value in £.
1883-'84.....	198, 716	22, 909	89, 202
1884-'85.....	228, 416	26, 102	101, 634
1885-'86.....	242, 035	27, 903	108, 647

In the last fiscal year each ton of quartz yielded 0.473 ounce of gold, and 27.9 per cent. were lost. In the Cujaba mine of the same company there were produced in 1884-'85, 3,043 ounces of gold, and in the year 1885-'86 2,809 ounces. In the latter year the gross product was less than expenses by £1,455.

The Santa Barbara Mining Company produced, in the year 1885, 42,029 oitavas of gold, having a value of £17,862. The Pitangui mine produced in the same year only 6,922 oitavas of gold, equal to £2,964. The remaining mines yielded together but a few thousand ounces of gold and produced at a loss.

The total production of gold in Brazil has amounted in recent years on the average to no more than 1,000 kilograms fine.

English experts assert that the production of gold in Brazil may be greatly developed, since hitherto only outlying veins of quartz have been worked. The gold-bearing ore of the Cujaba mine is enormous in quantity. The assay indicates 0.380 ounce of gold per ton, but no more than 0.159 ounce was secured, showing a loss of 57 per cent. An improved method of amalgamation would secure the refractory gold which now is lost in the tailings.

We get from official statistics the following statements as to the production of precious metals in Germany, inclusive of the yield from imported ores:

Years.	Gold.		Silver.	
	Kilograms.	Marks.	Kilograms.	Marks.
Average of—				
1831-1840.....	(*)	(*)	29,800	5,364,000
1841-1850.....	(*)	(*)	36,000	6,480,000
1851-1860.....	17.3	48,000	55,235	9,943,000
1861-1870.....	61.4	171,000	78,722	14,170,000
1871-1875.....	284.4	793,000	143,080	23,754,000
1876.....	281.3	784,658	139,779	21,969,415
1877.....	307.9	857,845	147,612	23,812,056
1878.....	378.5	1,056,338	167,660	25,390,332
1879.....	466.7	1,302,898	177,507	26,518,123
1880.....	463	1,291,752	186,011	28,607,561
1881.....	380.6	1,062,565	186,990	28,514,081
1882.....	376.1	1,051,155	214,982	32,763,057
1883.....	457.8	1,278,312	235,063	35,087,897
1884.....	555	1,550,858	248,116	37,055,661
1885.....	610.6	1,705,608	(277,900)	(39,750,000)

* Inconsiderable.

Of the total silver product of the year 1885, 79,952 kilograms came from the Kingdom of Saxony (Freiberg), 75,075 from the Mansfield mines, 49,321 kilograms from the Clausthal mines, 33,127 kilograms from the Stollberg Company, 50,425 kilograms from other sources.

At present Germany produces about 9 per cent. of the total product of silver. Such gold as is produced in Germany is obtained, with insignificant exceptions, by separation from silver and silver ores, or from copper and copper ores. The German refining works have attained extraordinary skill in such work, and of the silver produced in German works a considerable part comes from the imported ores. Exact statements as to the extent of this importation are lacking since 1876. For that year (1876) the official statistics stated the production of silver from foreign ores to be 16,633 kilograms. Trustworthy estimates indicate that in 1878 this product had risen to about 43,500 kilograms. For the year 1884 it is estimated that silver production in Germany was about 160,000 kilograms from domestic ores and 88,000 kilograms from imported ores. The increase of our production of silver is therefore to be ascribed mainly to the increasing use of foreign raw material. In the year 1884 there were produced on account of the fiscal works in Harz and at Freiberg about 85,000 metric cwt. of silver ore, which yielded about 235 kilograms gold and about 50,000 kilograms silver, having, all told, a value of about 8,000,000 marks. It is a curious distortion of the facts to assert, as has sometimes been done, that the importation of foreign silver ores from the west coast of America, from Spain, and latterly even from Australia, for smelting in Germany, is to be regretted because it serves to drive gold out of Germany in exchange for silver, of which there is already more than enough. It should be remembered

that the silver ores are paid for by the export of German commodities; that the mixture of foreign with domestic ores is necessary for the more perfect working of the latter; that Germany exports far more in refined silver and in manufactures of silver than the imported ores cost; and, lastly, that no inconsiderable decline in the demand for German labor would result if foreign silver ores were excluded.

In Austro-Hungary the production of the precious metals, according to official statements, was:

Years.	Gold.	Silver.
	<i>Kilograms.</i>	<i>Kilograms.</i>
Average of—		
1851-1855.....	1,775	25,000
1856-1860.....	1,560	31,700
1861-1865.....	1,690	26,500
1866-1870.....	1,650	39,970
1871-1875.....	1,396	38,550
Years—		
1876.....	1,903.6	47,947
1877.....	1,713.4	47,675
1878.....	1,824.1	48,662
1879.....	1,610.6	48,185
1880.....	1,645.4	47,701
1881.....	1,597.3	48,912
1882.....	1,740.8	47,663
1883.....	1,647	49,335
1884.....	1,708.3	49,907

We may now mention recent reports from other countries producing the precious metals, in order that they may not be entirely neglected.

The mines of Norway produced in the fiscal year 1883-'84 6,387 kilograms of fine silver, and the Swedish mines produced in 1883 1,583 kilograms and in 1884 1,816 kilograms.

In Great Britain silver was produced as follows from domestic lead ores:

Years.	Amount.	Value.
	<i>Ounces.</i>	
1878.....	397,471	£288,297
1879.....	333,674	70,006
1880.....	293,518	63,015
1881.....	308,398	67,140
1882.....	372,544	80,420
1883.....	344,053	72,484
1884.....	325,718	68,791
1885.....	320,520	64,938

The production of silver in British smelting works from imported ores is much larger. In the year 1885 silver ores were imported into the United Kingdom of the declared value of £1,085,227, of which £288,992 came from Spain, £514,844 from America, £117,841 from Australia. It should be stated that the value of these ores consisted mainly in the silver contained in them.

It is probably not too high an estimate if the yearly production of silver in Great Britain in recent years is put at about 120,000 kilograms fine.

For France, the official Statistics of Mineral Industry in France for 1881 state the production of silver to be 54,718 kilograms, of the value of 10,279,145 francs.

The silver production of Spain is estimated for the year 1880 at 65,871 kilograms, and for 1883 at 54,335 kilograms. The declared export of

silver in bars amounted in 1883 to 209,721 kilograms. The export of silver ores and of silver-bearing lead is much larger.

In regard to the production of the precious metals in Italy the *Anuario Statistico Italiano* for 1884 contains the following statement for the year 1881: Silver ores were produced in four mines to the amount of 1,444 tons, having an average value of 1,550 lire, making a total of 2,238,951 lire. Gold ores were produced by twenty-four concerns to the amount of 12,190 tons, having an average value of 38.98 lire and a total value of 475,170 lire. Amalgamating establishments produced 214 kilograms of gold, having a value of 590,000 lire.

In the Dominion of Canada not inconsiderable quantities of gold have been produced, especially in British Columbia and Nova Scotia. The quantity of gold there produced is estimated for 1881 at 1,648 kilograms, and for 1883 at 1,435 kilograms. For Nova Scotia alone the production of gold is stated for 1882 to be £14,107, and for 1883 £15,446.

From Nicaragua there was in 1884 a declared export of 16,472 Spanish ounces of gold. The actual export is said to have been considerably larger. Opinions differ as to the future production of gold in that region.

A number of stock companies have been formed in recent years for the purpose of carrying on the production of gold on the west coast of Africa, in the Transvaal, and in British India. With few exceptions they have been unsuccessful, and much capital has been entirely lost. Occasional instances of success may be mentioned, as follows: The Wasaw (Gold Coast) Mining Company, which in 1885 produced gold to the value of £5,497; the Moodie G. M. Company (in the Transvaal), whose monthly product in 1885 is stated to average 2,500 ounces (about £8,500). The Mysore G. M. Company (in India) divided 10 per cent. dividends in 1885. Its monthly product rose from 300 ounces to 1,000 ounces, and amounted in January of the present year (1886) to 1,135 ounces.

The export of gold from Port Natal is given for 1882 as £6,865, for 1883 as £20,293, for 1884 as £16,708.

It is worth noting in regard to the production of gold that, although by far the larger part of the new undertakings which begin actual work, not to mention the mass of swindling concerns which never get so far, lose money and are soon given up, yet not inconsiderable quantities are produced by such undertakings and make their way into trade. Whether the sum invested in producing this gold is replaced by the product is immaterial, since the new gold is there, and the sovereigns which the stockholders may have put out in expenses are not lost.

The share which the chief producing countries had in the total production of the precious metals between 1851 and 1885 may be estimated as follows (the value of silver being reckoned according to the actual ratio):

Countries.	Gold.	
	Marks.	Per cent.
United States.....	6,987,500,000	37.6
Australia.....	6,341,600,000	35.6
Russia.....	2,977,800,000	16.7
Mexico, Colombia, Brazil.....	707,700,000	4.0
Other countries.....	1,385,500,000	6.1
Total.....	17,810,100,000	100.0

Countries.	Silver.	
	Marks.	Per cent.
United States	2,551,100,000	26.6
Mexico	3,325,100,000	34.4
Peru, Bolivia, Chili	1,672,600,000	17.6
Germany	668,600,000	7.0
Other countries	1,379,500,000	14.4
Total	9,597,900,000	100.0

Finally, for the sake of comparison and completeness, we insert the estimates of the world's production of the precious metals, which appear in the annual reports of the Director of the Mint of the United States:

Total production of the precious metals in 1883 and 1884.

Countries.	1883.				1884.			
	Gold.		Silver.		Gold.		Silver.	
	Kilos.		Kilos.		Kilos.		Kilos.	
United States	45,140	\$30,000,000	1,111,457	\$46,200,000	46,843	\$30,800,000	1,174,205	\$48,800,000
Russia	30,913	23,868,000	7,781	323,000	32,829	21,818,000	9,336	358,000
Australia	39,873	26,500,000	2,151	89,000	42,960	28,551,000	2,788	116,000
Mexico	1,488	954,000	711,347	29,568,000	1,780	1,183,000	655,968	27,258,000
German Empire	457	304,000	230,694	9,589,000	555	369,000	248,113	10,312,000
Austria-Hungary	1,638	1,089,000	48,708	2,025,000	1,658	1,102,000	49,424	2,054,000
Sweden	37	25,000	1,583	66,000	19	13,000	1,816	75,000
Norway			5,645	235,000			0,387	266,000
Italy	109	72,000	432	18,000	109	72,000	432	18,000
Spain			74,500	3,096,000			3,562	148,000
Turkey	10	7,000	2,164	90,000	10	7,000	2,164	90,000
Argentine Republic	118	78,000	10,109	420,000	118	79,000	10,109	420,000
Colombia	5,802	3,556,000	18,283	780,000	5,802	3,556,000	18,286	780,000
Bolivia	109	72,000	384,985	16,000,000	109	72,000	384,985	16,000,000
Chili	245	163,000	128,106	5,325,000	245	163,000	128,106	5,325,000
Brazil	952	632,000			952	632,000		
Japan	256	170,000	21,121	878,000	256	170,000	21,121	878,000
Africa	3,000	1,994,000			3,000	1,994,000		
Venezuela	5,022	3,338,000			5,022	3,338,000		
Canada	1,435	954,000	1,641	68,000	1,435	954,000	1,641	68,000
France			6,356	264,000			6,356	264,000
Peru	179	119,000	45,909	1,908,000	179	119,000	45,909	1,908,000
Total	141,733	94,197,000	2,812,972	116,923,000	143,381	95,292,000	2,770,610	115,148,000

In what has preceded we have contented ourselves with presenting such detailed statements as are either of importance for the total or else significant as illustrating the variations in different statements. These statements have been the basis of the figures summarized in the tables. We have also referred to certain noteworthy events in the production of the precious metals in recent times, although for the present they are not of any great importance. We can not enter into a detailed and critical consideration of the most recent phases of the production of the precious metals. Such an investigation should be separately undertaken. What has here been presented is meant to give information only on the salient points. Above all, we wish to present material by which the practical importance of certain essential changes in the conditions affecting the production of gold and silver may be more easily understood. For such a purpose detailed figures seem less useful than the concisest possible presentation, even though this latter may be open to the charge of being incomplete and based on scant authority.

PART II.

RATIO OF SILVER TO GOLD.

PRICE OF SILVER IN LONDON

[From the reports of Pixley & Abell, bullion brokers, in

Years.	January.	February.	March.	April.	May.	June.
1851	61½	61½-61½	61½	61½	61½-61½	60½-61½
1852	60½-60½	60½	60½	59½-60	59½	59½-60½
1853	61½	61½	61½	61½	60½-61½	60½-61½
1854	61½-61½	61½	61½	61½-61½	60½-61½	61½-61½
1855	61½-61½	61½-61½	60½	60½	61½-61½	61½
1856	61½-61½	61½-61½	60½-61	60½-61	61-61½	60½-61½
1857	62½	61½-61½	61½-61½	61½-61½	61-61½	61½
1858	61½	61½-61½	61½	61½-61½	61½-61½	61½-61½
1859	61½-62	61½	61½-62½	61½-62½	62½-62½	62½-62½
1860	62-62½	62-62½	61½-62½	61½	61½	61½-61½
1861	61½-61½	61½-61½	60½-61	60½-61½	60½-60½	60½-60½
1862	61-61½	61½-61½	61½-61½	61½-61½	61½-61½	61-61½
1863	61½-61½	61½-61½	61½-61½	61-61½	61½-61½	61-61½
1864	61½-62½	61½-61½	61½-61½	61½-61½	60½-61	61-61½
1865	61½-61½	61½-61½	61-61½	60½	60½-60½	60½-60½
1866	61½-61½	60½-61	60½-61	61-61½	61-62	61½-62½
1867	60½	60½	60½-60½	60½-61½	60½-60½	60½-60½
1868	60½-60½	60½-60½	60½-61	60½-61	60½-60½	60½
1869	60½-60½	60½-61	60½-60½	60½-60½	60-60½	60-60½
1870	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½
1871	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½
1872	60½-61	60½-61	60½-60½	60½-60½	60½-60½	60½-60½
1873	59½-59½	59½-59½	59½-59½	59½-59½	59½-59½	59½-59½
1874	58-59	58½-59	58½-59	58½-59	58½-59	58½-59
1875	57½-57½	57½-57½	57-57½	57½-57½	56½-57	55½-55½
1876	54½-55	53-54	52½-54	53½-54	52-54	50-52
1877	56½-58	56-57½	53½-55	53½-55	53½-54½	53½-54
1878	53½-54	51½-55½	54½-55	53½-54½	53½-53½	52½-53½
1879	49½-51	49½-50½	48½-50½	49½-50½	50-51½	51½-53
1880	52½-52½	52-52½	51½-52½	51½-52½	52½-52½	52½-52½
1881	51-51½	51½-52½	52-52½	52-52½	51½-52	51½-51½
1882	51½-52½	52-52½	51½-52½	52½-52½	52½-52½	51½-52½
1883	50-50½	50½-51	50½-51½	50½-50½	50½-50½	50½-50½
1884	50½-51	51-51½	50½-51½	50½-51	50½-50½	50½-50½
1885	49½-50	48½-49½	49-49½	48½-49½	48½-50	49-49½
1886	46½-46½	46½-46½	46½-46½	46½-46½	45-45½	44½-45

From 1851 to 1872 the average price of silver at Hamburg was a fixed one of 27 marcs 12 schillings pound of fine silver. [The marc banco was = 1½ marks of present German money. The "mark"

PRODUCTION OF THE PRECIOUS METALS.

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IN THE YEARS 1851-1886.

pence sterling per ounce standard (37.40 of silver.)

July.	August.	September.	October.	November.	December.	Average per year.	Average price of silver in Hamburg, M per kg. f.
60½-61	60½-61	60½-60½	60-60½	60½	60½	61	178. 00
60½	60½	60½	60½-61½	61½-61½	61½-61½	60½	
61½-61½	61½-61½	61½-62½	61½-62½	61½-62½	61½-61½	61½	
61½	61½	61-61½	61½-61½	61½-61½	61½	61½	
61½-61½	61½	61½	61½	60-61½	61½	61½	
60½	61½-61½	61½-62½	62	62½	61½-61½	61½	
61½-61½	61½-62	61½	61½	61½-61½	61-62½	61½	
61½-61½	60½-61	60½	61½-61½	61½-61½	61½-61½	61½	
62-62½	61½-62	61½-62	61½-62	62	62	62½	
61½	61½-61½	61½-61½	61½-61½	61½-61½	61½-61½	61½	
60½-60½	60½-60½	60½-60½	60½-60½	60½-61½	61-61½	60½	178. 00
61-61½	61½-61½	61½-61½	61½-61½	61½-62½	61½-61½	60½	
61-61½	61-61½	61½-61½	61½-61½	61½-61½	61½-61½	61½	
61½-61½	61-61½	61½-61½	60½-61½	61½-61½	61½	61½	
60½-60½	60½-60½	60½-61	61½-61½	61½-61½	61½-61½	61½	
60½-61½	61-60½	60½-61	60½-61	60½-61	60½-60½	61½	
60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½	
60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½	
60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½	
60½-60½	60½-60½	60½-60½	60½-60½	60½-61	60½-60½	60½	
60½-60½	60-60½	60½-60½	60-60½	59½-59½	59½-59½	60½	173. 22
59½-59½	58½½-59½	58½-59½	58½-59	57½-58½	58-58½	59½	
59½-58½	57½-58½	57½-58	57½-57½	57½-58½	57½-57½	58½	
57½-57½	56-56½	56½-56½	56½-57½	56½-56½	56½-56½	56½	
49½-51½	50½-53½	51½-52½	52-53½	53½-55	55½-58½	52½	
52½-51½	54-54½	54½-55½	54½-55½	54-55	53½-54½	54½	
52½-52½	52½-52½	51½-52½	49½-51½	50½-50½	49½-50½	52½	
51-52½	51½-51½	51½-51½	51½-53½	53-53½	52½-53	51½	
52½-52½	52½-52½	52½-52½	51½-52½	51½-51½	51½-52	52½	
50½-52½	51½-52	51½-51½	51½-52½	51½-52	51½-52	51½	
51½-52	51½-52	51½-52	51½-51½	50½-51½	50-50½	51½	152. 78
50½-50½	50½-50½	50½-50½	50½-51	50½-50½	50½-51	50½	
50½-50½	50½-50½	50½-50½	50½-50½	49½-50½	49½-49½	50½	
49½-49½	48½-49½	47½-48½	47½-47½	47½-47½	46½-47½	48½	
42½-44½	42-42½						

banco per mark of fine silver (1 mark = 16 loth = 233.85489 grams); equivalent to 50½ marcos per here referred to by Dr. Soetbeer is a measure of weight.—Translator's note.]

RATIO OF SILVER TO GOLD.

[Calculated from the London price of silver.*]

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average per year.	Average per year in Hamburg.
1851.....	15.30	15.32	15.33	15.33	15.43	15.43	15.52	15.49	15.57	15.65	15.62	15.52	15.46	15.35
1852.....	15.52	15.59	15.62	15.68	15.75	15.73	15.64	15.62	15.62	15.49	15.22	15.35	15.55	15.42
1853.....	15.36	15.38	15.36	15.36	15.41	15.46	15.35	15.30	15.21	15.40	15.14	15.27	15.33	15.27
1854.....	15.27	15.23	15.26	15.26	15.27	15.36	15.36	15.40	15.36	15.40	15.36	15.32	15.33	15.22
1855.....	15.33	15.32	15.36	15.52	15.43	15.33	15.33	15.33	15.29	15.36	15.41	15.36	15.36	15.32
1856.....	15.40	15.38	15.47	15.46	15.43	15.43	15.40	15.35	15.24	15.21	15.15	15.18	15.34	15.31
1857.....	15.19	15.24	15.27	15.27	15.33	15.26	15.29	15.24	15.32	15.26	15.29	15.26	15.27	15.24
1858.....	15.35	15.27	15.32	15.36	15.33	15.33	15.44	15.47	15.51	15.40	15.29	15.30	15.36	15.26
1859.....	15.24	15.27	15.26	15.18	15.12	15.19	15.13	15.21	15.27	15.21	15.21	15.21	15.21	15.22
1860.....	15.18	15.19	15.18	15.29	15.30	15.40	15.44	15.36	15.30	15.29	15.32	15.35	15.30	15.25
1861.....	15.38	15.41	15.24	15.44	15.43	15.57	15.67	15.64	15.57	15.52	15.47	15.43	15.48	15.38
1862.....	15.35	15.32	15.38	15.41	15.40	15.33	15.46	15.41	15.38	15.33	15.21	15.29	15.36	15.32
1863.....	15.29	15.33	15.33	15.43	15.38	15.35	15.44	15.46	15.43	15.38	15.35	15.35	15.38	15.29
1864.....	15.23	15.33	15.33	15.54	15.46	15.40	15.41	15.38	15.33	15.46	15.47	15.39	15.39	15.29
1865.....	15.33	15.35	15.41	15.54	15.54	15.57	15.55	15.54	15.51	15.44	15.10	15.32	15.43	15.32
1866.....	15.32	15.43	15.47	15.65	15.32	15.19	15.35	15.57	15.51	15.46	15.47	15.49	15.44	15.27
1867.....	15.49	15.53	15.52	15.46	15.55	15.59	15.59	15.60	15.63	15.61	15.66	15.61	15.57	15.40
1868.....	15.62	15.59	15.54	15.55	15.59	15.62	15.61	15.64	15.66	15.64	15.59	15.54	15.61	15.52
1869.....	15.53	15.49	15.57	15.57	15.65	15.68	15.64	15.64	15.60	15.61	15.59	15.59	15.60	15.53
1870.....	15.57	15.60	15.59	15.61	15.60	15.60	15.45	15.50	15.62	15.59	15.56	15.56	15.60	15.45
1871.....	15.57	15.58	15.61	15.66	15.66	15.63	15.57	15.54	15.52	15.60	15.50	15.52	15.58	15.51
1872.....	15.60	15.45	15.51	15.57	15.68	15.70	15.68	15.68	15.61	15.70	15.65	15.79	15.64	15.56
1873.....	15.75	15.75	15.75	15.78	15.82	15.88	15.90	15.96	16.00	16.05	16.26	16.25	15.93	15.95
1874.....	16.05	16.05	16.00	16.01	16.06	16.06	16.15	16.26	16.32	16.33	16.26	16.40	16.16	16.05
1875.....	16.38	16.42	16.51	16.47	16.61	16.74	16.90	16.76	16.63	16.56	16.61	17.74	16.63	16.54
1876.....	16.98	17.38	17.67	17.55	17.80	17.24	19.59	18.07	18.21	17.96	17.50	16.61	17.80	17.72
1877.....	16.35	16.54	17.16	17.40	17.42	17.59	17.44	17.42	17.32	17.13	17.30	17.20	17.19	17.24
1878.....	17.53	17.38	17.30	17.44	17.62	17.76	17.92	17.97	18.33	18.71	18.65	18.87	17.96	17.96
1879.....	18.84	18.88	19.03	18.97	18.47	18.18	18.18	18.29	18.29	18.14	17.66	17.94	18.39	18.31
1880.....	17.96	18.05	18.14	18.13	18.09	17.97	17.90	17.90	18.02	18.11	18.22	18.19	18.06	18.00
1881.....	18.36	18.12	17.99	18.11	18.22	18.37	18.27	18.29	18.23	18.15	18.16	18.18	18.24	18.15
1882.....	18.15	18.12	18.15	18.07	18.04	18.39	18.20	18.15	18.17	18.23	18.38	18.70	18.27	18.17
1883.....	18.76	18.60	18.50	18.64	18.78	18.71	18.71	18.66	18.57	18.51	18.59	18.58	18.65	18.62
1884.....	18.54	18.42	18.51	18.58	18.55	18.57	18.57	18.59	18.58	18.62	18.84	18.98	18.63	18.58
1885.....	18.98	19.17	19.21	19.10	19.05	19.22	19.17	19.32	19.72	19.68	19.68	19.98	19.39	19.42
1886.....	20.20	20.22	20.17	20.33	20.75	25.04	21.65	22.20	.....	.....	.....	.....	.....	.....

For the years 1851 to 1880 these figures are taken from Dr. O. J. Broch's Tableaux présentées à la conférence monétaire, Paris, 1881. An obvious mistake (or misprint) for July, 1874, is corrected, the figure 16.96 for that month being replaced by 16.15, which corresponds to the price of silver at that date. After 1880 the ratio is based on Pixley & Abell's prices.

*Let d mean the price in pence of an ounce Troy of standard silver (0.925 fine), and let s mean the corresponding ratio between silver and gold; then $d \times s = 942.9956$.

REMARKS ON THE TABLES SHOWING THE RATIO OF SILVER TO GOLD.

In the second part of the essay published by us in Petermann's *Mittheilungen* we have considered in detail the ratio between silver and gold up to the year 1878. In the present paper we confine our attention, for the period before 1851, to certain salient points.

The earliest information which we have on this subject is furnished by the carefully-made standards which were discovered in the foundations of the palace of Khorsabad, built by the Assyrian ruler Sargina in the year 708 B. C. The gold plate weighs 167 grams, and was $\frac{2}{3}$ of the light Babylonian *mine*. The silver plate weighs 438.62 grams, and was meant beyond doubt to be the equivalent in silver to $\frac{1}{15}$ of the gold *mine*. These plates are in value to each other as 5 to 1, in weight as 3 to 8; from which we conclude that the normal ratio of gold to silver in the ancient Asiatic civilization was 3 : 40, or 1 : 13 $\frac{1}{3}$. In view of the stability of industrial conditions in Oriental countries, it is likely that this ratio had already existed many centuries before the building of the palace. The same ratio held good under the Persian kings, as is proved by the fact that Herodotus calculates the tribute paid by the Indians at 360 talents of gold, or 4,680 talents of silver, which indicates a ratio of 1 to 13.

In a philosophic treatise of about the year 400 B. C., entitled *Hippiarchos*, it is mentioned as a well-known fact that in Greece gold was worth twelve times as much as silver.

Many calculations found in inscriptions and other records of the period between the Peloponnesian war and the time of Alexander the Great show that in those days the ratio between gold and silver in Greece maintained itself somewhere between 1 : 13 $\frac{1}{3}$ and 1 : 11 $\frac{1}{2}$.

After the conquest of the Persian empire a larger quantity of gold made its way to Greece. The sack of the treasures at Delphi also served to add gold, and the value of gold as compared with silver sank to 1 : 10. This ratio was also used in the year 189 B. C., in the treaty of peace between Rome and the Ætolians.

In Rome, in the sixth and seventh centuries A. U. C., the pound of gold was reckoned at 4,000 sesterces. This indicates a ratio of 1 : 11.91, a ratio which remained unchanged till the time of Augustus.

It is mentioned that in the year 218 B. C. the scruple of gold was coined into 20 sesterces, indicating a ratio of 1 : 17.14. It is also reported that about one century B. C., after the discovery of the rich gold field of Aquileja, the value of gold sank by a third ($\frac{1}{3}$). Further, it is said that when Cæsar brought great sums of gold from Gaul, the pound of gold was sold for 3,000 sesterces, indicating a ratio of 1 : 8.93. But all these seem to have been exceptional cases of temporary duration, which are mentioned by historians only because of the surprise which they aroused at the time.

Reckoning the ratio of gold to silver according to the coinage regulations of the first centuries of the imperial era, we find that the ratio varied from 1 : 11.30 to 1 : 12.20.

In the imperial ordinances of the years 397 and 422 (Cod. Theodos., XIII, 2, 1, and VIII, 4, 27) it is provided that a pound of silver shall be accepted as equivalent, sometimes to five, sometimes to four, gold solidi, which would indicate a ratio at that time sometimes of 1 : 14.4, sometimes of 1 : 18. It is, however, our opinion, which we have not space here to support by full discussion, that these ordinances do not indicate

what was the ratio in trade, but were meant simply to lighten the payment of debts, and also to encourage payments in gold. An appreciation of gold at the dates of these ordinances is, it is true, not improbable, since in those troubled times the practice of hoarding may well have been common, and gold was most likely to be used for that purpose.

For the first centuries of the Middle Ages our data in regard to the ratio of the precious metals are few and uncertain. The *Edictum Pistense*, in the year 864, enacted for the Frankish empire that the pound of gold (fine) should pass at no higher rate than 12 pounds of silver of new and good denarii; and that a pound of gold which, though refined, was not refined to such a degree that it could serve for gilding, should pass for 10 pounds of silver. It must be remembered that the denarii, even though not intentionally debased, contained by no means fine silver, and that on the other hand the cost of coinage has to be reckoned in comparing gold to the silver coins. Assuming these two circumstances to balance each other, we should get for the Carolingian period a normal ratio of gold to silver of 1:12. For subsequent times, up to the beginning of the sixteenth century, we have a large number of mint ordinances and mint treaties of various countries, from which the ratio in which gold and silver were coined may be calculated. But it is a great mistake to suppose that from such sources we can obtain with certainty the actual ratio between the precious metals. The sudden and great changes which are apt to occur within very short periods in the regulations of one and the same mint suffice to make us suspicious, not to mention the great discrepancies between the contemporary regulations of different countries. The task of sifting the various data for the Middle Ages and of securing statements that will indicate with some accuracy the actual ratio at different times is an exceedingly difficult one. Upon the whole it may be said that the ratio between gold and silver was, in European countries between the ninth and the sixteenth centuries, somewhere from 1:12 to 1:10. Yet there are certain striking exceptions; as when, for instance, a code of Jutland of the thirteenth century makes one mark of gold equivalent, in valuation of land and in fines, to eight marks of silver. We limit ourselves to a few trustworthy statements which refer to actual transactions or to actual coinages of both metals at the same time.*

In Lubeck the purchases of gold and silver took place according to the following ratios: In 1346, at a ratio of 1:11.33; in 1365, at 1:11.37; in 1441, at 1:11.12. The contemporaneous coinage took place at a ratio of from 1:12 to 1:12.40. Professor Rogers gives certain notices, gathered from ancient accounts. According to these, in the year 1262 and subsequent years, the mark of gold was considered equal sometimes to 9 marks and 11½ shillings of silver, sometimes to 10 marks of silver, and sometimes to 9½ marks of silver; which gives on the average a ratio of 1:9.74. A bill of the year 1292, on the other hand, reckons 270 gold guilders, weighing 53½ ounces, as equal to 668½ ounces of silver; which would give, if the gold and silver were equally fine, a ratio of 1:12.54. It seems certain that extraordinary changes took place at that time in England; and it is practically impossible to get any average from scattered notices of this kind.

The best way to get an approximately correct statement of the ratio of gold to silver in the trade of the Middle Ages probably is to use the

* The authorities for these statements may be found in our essay above cited, and in Rogers's *History of Agriculture and Prices in England*. Compare also W. Schalk, *Münzfuss der Wiener Pfennige*.

table which is printed in the well-known treatise, *Della Decima della Moneta e della Mercatura de' Fiorentini* (published in 1765.) Gold and silver were coined as follows :

Years.	Grains of gold in gold florin.	Grains of silver in lire.	Ratio.	Years.	Grains of gold in gold florin.	Grains of silver in lire.	Ratio.
1252.....	72	770	1 : 10.70	1460.....	71½	672½	9.38
1296.....	73	783½	10.38	1462.....	71½	674½	9.38
1324.....	70½	[sic] 960	13.33	1464.....	72	[sic] 822½	11.43
1345.....	71½	[sic] 778½	10.38	1471.....	72	760½	10.37
1375.....	71½	772½	10.38	1480.....	72	781½	10.38
1402.....	69	717½	10.38	1485.....	72	752½	10.38
1422.....	71½	729	10.38	1495.....	72	752½	10.38

Putting aside the years 1324, 1345, and 1464, in which it seems likely that the mint set an exceptionally high value on gold in order to attract it to the town, we find that there was in Florence, then the central point for monetary transactions, a fairly stable ratio, varying between 1:9.33 and 1:10.87.

For the period from the discovery of America to the year 1687 (when we begin to get continuous and exact figures) we have more numerous data than in the preceding centuries ; yet we cannot by any means find continuous, detailed statements.

Copernicus prepared in 1526 for King Sigismund a memorial on the reform of the coinage of Prussia, in which he said it was the general practice of nations to consider 1 pound of pure gold as equal to 12 pounds of pure silver ; while in former times 11 pounds of silver had been equal to 1 pound of gold. This statement, however, does not tally with the examples occurring in the common account-books (*Rechenbücher*) of that period. It must be supposed, upon the whole, that these account-books give the prices that obtained in actual trade, the more so, since their estimates are frequently repeated with but slight variations. Their prices are generally given for the mark fine of silver or for the carat fine of gold, so that the ratio is clearly presented. In an account-book of Widman von Eger (edition of 1527), the average price is 7½ guilders for the mark of silver and 3½ guilders for the carat of gold ; in Adam Riese's account-book, as revised in 1518, the average of nine statements indicates a price of 8.13 guilders for the mark of silver and 83.82 for the mark of gold. The first statement gives a ratio of 11.2:1 ; the second, a ratio of 10.31:1. Copernicus, as already stated, asserts that in 1526 the usual ratio was 12:1, a ratio much more favorable to gold. This is explained, perhaps, by the fact that Copernicus understood the prices of silver, as communicated to him, to be for fine silver, whereas they may have referred to what was called fine silver in the language of the time ; that is, as to silver 15-16 fine. According to a coinage edict for the Empire, approved November 10, 1524, at Esslingen, the mark of gold was to be coined into 89 gold guilders 22 carats fine, while the mark of silver, 15-16 fine, was to be coined into 8 thalers. This indicates a ratio of 11.38:1.

We have gone into this detailed discussion of a single point chiefly in order to win the reader's confidence for the following summary statements, which rest upon careful investigation of the ratio to the close of the seventeenth century. The statements, it must be remembered, are no more than estimates, since considerable divergencies in different places and rapid variations in the same place were easily possible in those times. This being borne in mind, we present a table showing the

ratio of silver to gold in Germany, the Netherlands, and France for twenty-year periods between 1501 and 1700; and we have little fear that they vary greatly from the actual market ratios of those times and places.

Years.	Ratio.	Which corresponds to a price of silver in modern German (gold) marks of—
1501-1520	10,75 : 1	280
1521-1540	11,25 : 1	248
1541-1560	11,50 : 1	247
1561-1580	11,50 : 1	243
1581-1600	11,50 : 1	236
1601-1620	12,25 : 1	228
1621-1640	14,00 : 1	199
1641-1660	14,50 : 1	192
1661-1680	15,00 : 1	186
1681-1700	15,00 : 1	186

We observe here a distinct tendency toward a rise in the value of gold as compared to that of silver—or, if another phraseology be preferred, towards a depreciation of silver—in the course of the sixteenth and seventeenth centuries; needless to say, with many and considerable variations and exceptions at different times and in different places. At the beginning of this period of two hundred years, ten and one-half pounds of fine silver would buy one pound of fine gold. At its close fifteen pounds of silver were needed to buy one pound of gold, indicating a depreciation of silver of about thirty per cent.

This great change in the ratio of the precious metals attracted at the time the attention of economic writers. The Italian Montanari says, as early as 1683, in his *Trattato mercantile della moneta*, after mentioning Bodin's statement of a ratio of 12 : 1, that "the ratio of silver to gold of 12 : 1 has changed to a ratio of 14 $\frac{3}{4}$: 1." This writer believed that the chief cause of the appreciation of gold was to be found in the trade with the Levant, by which great quantities of the precious metals were exported; and the silver exported remained in circulation in the East, while the gold was hoarded.

The conclusions which we presented in previous publications as to the causes of this appreciation of gold, especially in the first half of the seventeenth century, have remained unshaken. We venture again to present these conclusions, since the events of that time present a close analogy to the similar changes in the ratio of the precious metals in modern times. What caused the extraordinary rise in the value of gold between 1601 and 1650? Was it simply an increase in silver production, leading to a fall in the value of silver; or was it a decrease of gold production, and an increased demand for gold, leading to a rise in the value of gold?

Looking first at the statements of the production of the precious metals, we find that the production of silver was greatly increased after 1545 by the rich silver mines of Potosi, and we can not be surprised if, in consequence, the relative value of silver should fall between 1550 and 1600. A fall, in fact, took place, yet a gradual and moderate one. Even in the years from 1601 to 1620 we note a slow change in the ratio. In the next three or four decades a quick and sudden rise in gold took

place, although no extraordinary change occurred in the production of the precious metals. It may be alleged that the effect of the former great changes in the production of the precious metals did not produce their effect before this date, and that the real cause of the fall of silver between 1621 and 1650 must still be sought in the great influx of silver that took place after 1545 from Peru, Potosi, and Mexico. We are not disposed to deny entirely that such a postponed effect may be traced. Yet the chief cause in the great and permanent rise in the value of gold after 1620 must still be sought in the increased demand for gold that then took place, an increase of demand which far exceeded the fresh supply coming from the mines of New Grenada and Chili. The cause of the increased demand is to be found primarily in the continuous wars in Europe, which, as is well known, caused gold to be in great request. Next, it is to be found in the growth of international trade in the seventeenth century, which, notwithstanding the extending use of bills of exchange, yet created the need for shipments of coin. Obviously gold, both intrinsically and because of the common prohibition of coin shipments, was a better medium than silver. Whatever may have been the decisive cause, there can be no doubt that between 1621 and 1650 a considerable and permanent change took place in the ratio of the precious metals in all civilized countries. If wars and the necessities of government treasuries were at the outset the chief causes, yet appreciations brought about by them could not have been permanent unless a further cause, the growing use of gold in international trade, had come into operation. No explanation of such an extraordinary change can be found in the conditions of the production of gold and silver. Nor can we believe, after repeated examination, that the rise in the value of gold is to be ascribed chiefly to mint regulations. On the contrary, these regulations are generally based on changes in the price of gold that had already taken place in the open market. It is difficult to see why the governments should arbitrarily give their gold coins a higher nominal value, and thereby degrade the ordinary money of the country. Where they wished to debase their coins they did it most easily by issuing cheaper and cheaper subsidiary coins, and devices of this kind were widely used in the sixteenth and the beginning of the seventeenth centuries. These events have nothing to do with the ratio of the precious metals, since the ratios based upon them compare only gold and current silver coins. An arbitrary appreciation of gold coins, as a means of bringing gold to the mint, was necessarily ineffective and led to loss, and was never used except for a very short time.

We now come to the explanation and statement of the ratio of the precious metals since the beginning of the seventeenth century. As it is not to be assumed that all those who make use of the present materials are also able to use our earlier publication of 1879, in which this subject was treated at large, and as it is our present object to provide all necessary material with completeness, we repeat our earlier statements. After the year 1687 we possess, in the regular quotations of the price of gold or silver at Hamburg or at London, trustworthy data for ascertaining the ratio between silver and gold. We present this ratio for the period between 1687 and 1832 according to the Hamburg prices; from 1833, according to the London prices. The calculation from the Hamburg prices was made as early as 1855 on the basis of the original quotations by the Hamburg Bureau of Statistics. This was done by ascertaining the highest, the lowest, and the average rates, from the 104 quotations of each year. After 1833 we gave up these Hamburg tables, and made use of the tables of the more important London brokers. We

should not omit to state, for the sake of completeness and impartiality, that the late Mr. Ernst Seyd prepared, for the years from 1733 to 1819, a series of figures noted at the Bank of England, which he compared with the Hamburg figures used by us. Mr. Seyd communicated no details as to these English quotations or as to the manner in which his averages were reached. He made the mistake, moreover, of assuming that, in giving the price of silver in pence per standard ounce, we were trying to ascertain the contemporary London price of silver by means of the Hamburg price. As a matter of fact, we carefully explained that we used this method only for the sake of expressing the price of silver more clearly in the terms now commonly used. It goes without saying that in the last century the greater cost of transportation and other circumstances might have caused the price of silver in Hamburg and in London to differ by several percents. As a market for silver, Hamburg, possessing as it did a bank money based on fine silver and a large fund of silver in the vaults of the bank, probably took higher rank than London. We therefore believe that the ratio as ascertained from the Hamburg quotations for the period from 1687 to 1832 is, upon the whole, the standard ratio. Mr. Seyd's criticism rests on his belief that "the prices of silver at London from the beginning of the century to 1872 are an absolute indication of the exact ratio between silver and gold. It is mathematically certain that the variations in the price of silver at London before 1873 above or below the price of 60½ pence per ounce result only from changes in the actual value of silver."

Arranged by periods of several years, the average ratio of silver to gold was as follows:

Years.	Kilograms silver for 1 kilogram gold.	Correspond- ing price of silver in pence per ounce.	Years.	Kilograms silver for 1 kilogram gold.	Correspond- ing price of silver in pence per ounce.
1701-1710	15, 37	61½	1811-1820	15, 51	60½
1711-1720	15, 15	62½	1821-1830	15, 50	59½
1721-1730	15, 00	62½	1831-1840	15, 75	58½
1731-1740	15, 07	62½	1841-1850	15, 53	59½
1741-1750	14, 33	63½	1851-1855	15, 41	61½
1751-1760	14, 25	64½	1856-1860	15, 30	61½
1761-1770	14, 51	63½	1861-1865	15, 40	61½
1771-1780	14, 54	64½	1866-1870	15, 45	60½
1781-1790	14, 75	63½	1871-1875	15, 07	59½
1791-1800	15, 43	61½	1876-1880	17, 51	52½
1801-1810	15, 51	60½	1881-1885	18, 53	50½

This table shows, for about one hundred and ten years beginning with 1681, a noteworthy stability in the ratio, especially when compared with the continuous rise in the value of gold from 1501 to 1650. The growth of international trade and the great increase in the Mexican production of silver might lead us to expect a further depreciation of that metal. If no such depreciation set in, it may be explained by the fact that the Spanish piaster became the coin in use for many international transactions. Moreover, there was a continuous and large flow of silver to the East, where, from time to time, gold was exchanged for silver at rates advantageous for Europe. In the years from 1751 to 1782 one notices even a slight fall in the value of gold. There is no doubt as to the cause of this phenomenon, since it took place at the time of the distribution over Europe of the increased gold product of Brazil.

The opinion was then commonly entertained by governments that legislation should fix the ratio of silver to gold by mint regulations. Consequently, the fluctuations in the value of gold, and especially its

rise after 1782, caused a number of regulations in different countries. None of these was of greater importance or effect than that of France, issued October 30, 1785, entitled, *Déclaration du roi portant fixation de la valeur de l'or relativement à l'argent*, etc. After an introduction stating that the intrinsic value of French gold coins was above their nominal value, and that they were continually exported, and that it was accordingly necessary to reduce the weight of the gold coins, the first article begins with the clear and simple provision :

Chaque marc d'or fin de 24 karats vaudra 15 marcs et demi d'argent fin de douze deniers, et sera reçu et payé dans nos Monnaies et Changes pour la somme de 828 livres, 12 sous, valeur des dits 15½ marcs d'argent au prix actuel de 53 livres, 9 sous, 2 deniers, le marc.*

This ordinance marks the origin of the ratio between the precious metals which for a number of decades was considered normal, and whose establishment at the mints by statutes and treaties is now desired in so many quarters. It can not be said that the ratio of 15½ : 1 was at that time (1785) the actual ratio in free markets. For here a mark of gold was worth only about 15 marks of silver. The French ordinance obviously was intended to raise the nominal value and the current value of the new gold coins, in order to further the flow of gold to the mint and to prevent the melting and exportation of the new coins. The French coinage law of 1803 took its ratio from this earlier ordinance of 1785, enacting that 200 francs silver should be coined from the kilogram of silver $\frac{9}{10}$ fine, while 3,100 francs gold should be coined from the kilogram of gold $\frac{9}{10}$ fine.

Since the beginning of the present century the ratio has become still more favorable to gold, and, as a rule, has gone higher than the point of 15½ : 1. The cause of the higher value of gold is mainly to be found in the wars that lasted until 1815 and in the increased productiveness of the Mexican silver mines up to 1810. There was at the same time a distinct decrease in the production of gold in Brazil. When peace was re-established, the resumption of specie payments in England on a gold basis caused a strong demand for gold, and the ratio rose to nearly 16 : 1. From that time until 1860 the average yearly ratio fluctuated between 15.95 : 1 and 15.62 : 1, so that, for this period also, a fair degree of stability existed. A fall in the value of gold was apt to take place in those years in which England needed unusually large imports of grain, which were paid for by remittances of gold to the continent. That the value of gold did not rise higher during this time was the result of the increased production of gold in Russia, which afforded a much needed substitute for the decrease in the production of Brazil, Chili, and New Granada.

The discovery of the Californian and Australian gold-fields completely revolutionized the conditions of the production of both metals. Thereafter two-thirds of the value of the total product came from gold, and but one-third from silver, the proportion of former times being exactly reversed. As, at the same time, the shipments of silver to East India rose considerably, there was general expectation of an inevitable depreciation of gold. Chevalier's book, which was translated into English by Cobden, maintained this opinion; and it is true that a depreciation of gold did, to a certain extent, set in. The price of silver, which had averaged 59½ pence in the period from 1831 to 1850, rose in January, 1859, to 62½ pence, and averaged, during the decades 1851-1870, 61½ pence. But the most important cause of this rise in the price of silver was not the excessive supply of new gold, but the state of trade with

* 12,830 : 200,160 :: 1 : 15.522.

India, which caused, especially during the American civil war, a strong demand for silver. That the price of silver did not rise considerably higher was the result, as is well known, of the double standard—or, better, the alternate standard—of the Latin Union, which caused a large part of the new gold to be brought to Paris and Brussels for coinage, replacing silver coins. In the period from 1851 to 1870 over 6,000 millions of francs in gold were coined. Between 1867 and 1872 the average ratio became a very little higher than 15½: 1, in favor of gold. Beginning with 1873, the ratio changed still further in favor of gold. This is the event, analogous to the phenomena of the years 1620–1650, which has attracted so much attention from Governments, economists, and business men.

We have already given, in our general tables, the average price of silver for recent years. We add here certain tables of the highest, lowest, and average prices of each year since 1876, giving both Paris and London quotations:

Years.	Price of silver in Paris according to Clément Juglar.						London price of silver according to Pixley & Abell.		
	Prime resp. Perte pr. 1,000 fos.						Pence pr. standard ounce.		
	Gold.			Silver.			Highest.	Lowest.	Average.
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.			
1876	pair	½ perte	½ perte	225 perte	85 perte	130 perte	58½	46½	52½
1877	1 prime	1 perte	pair	110 perte	85 perte	72½ perte	58½	53½	54½
1878	2½ prime	pair	1½ prime	170 perte	98 perte	134 perte	56½	49½	56½
1879	prime	pair	3 prime	175 perte	100 perte	137½ perte	53½	48½	51½
1880	7 prime	pair	3½ prime	135 perte	117 perte	126 perte	62½	51½	62½
1881	7 prime	2 prime	4½ prime	140 perte	115 perte	127½ perte	52½	50½	51½
1882	4 prime	pair	2 prime	160 perte	129 perte	144½ perte	52½	50	51½
1883	3 prime	pair	1½ prime	167 perte	146 perte	156½ perte	51½	50	50½
1884	4½ prime	1 prime	2½ prime	162 perte	155 perte	158½ perte	51½	49½	50½
1885	5 prime	pair	2½ prime	220 perte	165 perte	192½ perte	80	46½	48½
1886 (1 Sem) ..	1 prime	pair	½ prime	230 perte	215 perte	232½ perte	46½	44½	46½

The price of silver in August, 1886, was $42\frac{5}{16}$ pence per ounce standard (equivalent to 125 marks per kilogram fine silver). This price, compared to the average price of the fifty years from 1821 to 1870, namely, $60\frac{1}{8}$ pence (equivalent to 179 marks per kilogram fine), shows a fall of $18\frac{5}{8}$ pence, or 30.2 per cent. In comparison with the highest price of silver, $62\frac{1}{2}$ pence (equivalent to 186 marks per kilogram fine), reached in the year 1859, it shows a fall of 36.6 per cent. In the countries where the silver standard exists, as in British India, this change is considered, not a fall in silver, but a rise in gold. In July, 1872, one tolah of gold was sold for 17 rupees, indicating a ratio of 15.58; while in December, 1885, one tolah cost 22 rupees 2 annas, indicating a ratio of 20.22. The price of gold had risen 30.15 per cent.

It is not within the scope of the present publication to undertake a detailed consideration of the causes of the depreciation of silver since 1873, our object being to present nothing more than materials. There is a close connection between the views and proposals on the silver question, and the legislative measures of the particular countries, on the one hand, and, on the other hand, the opinions as to the cause of the depreciation of silver and the expectations as to its future price. Matters are now in a state of transition, and statistics can not be brought to a proper close.

PART III.

CONSUMPTION OF THE PRECIOUS METALS.

CONSUMPTION OF THE PRECIOUS METALS.

The production of the precious metals has to be compared with their consumption, or use; the statistics of the latter are equally important. In general, there are three kinds of consumption of gold or silver in civilized countries: First, coinage and other monetary use; second, consumption in the arts, for ornament and for various purposes in industry, in manufactures, in the fine arts—all to be included under the term “industrial use”; third, net export to regions outside the civilized countries.

Over and above these various kinds of consumption, we assumed, in earlier publications, the existence of a “latent reserve” in the possession of civilized countries. We were compelled to resort to this expedient in order to explain the discrepancies which appear for specific periods between the production of gold and its use, a discrepancy which remained after the most careful investigation. By this term “latent reserve” we mean those quantities of the precious metals which are neither in circulation nor a reserve for credit obligations, which are not used as plate, ornaments, or for any direct use, but are retained for the time being without any real use. In this category we must place coins no longer legal tender in the hands of private persons, relics of coin in countries having a depreciated paper money, hoards of coin in general, and articles of gold or silver which are not used and are kept more or less hidden. This latent reserve is, of course, not a fixed amount, but increases or decreases in every country from time to time. As industrial conditions change, new amounts flow into it, or are taken out of it, for circulation or for use in the arts. The coin in the hands of mine owners or of speculators belongs, for the time being, to the same category.

1. COINAGE.

Years.	Germany.		Austro-Hungary.		Russia.		
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.	
						Legal tender.	Subsidiary coin.
	<i>Marks.</i>	<i>Marks.</i>	<i>Florins.</i>	<i>Florins.</i>	<i>Roubles.</i>	<i>Roubles.</i>	<i>Roubles.</i>
1857	164, 874	13, 863, 931	.....	1, 149, 519	ca20, 000, 000	ca4, 000, 000	.....
1858	5, 365, 735	25, 210, 570	5, 395, 635	52, 834, 972	ca20, 000, 000	ca4, 000, 000	.....
1859	2, 841, 822	83, 567, 142	10, 299, 044	57, 130, 946	ca20, 000, 000	ca4, 000, 000	.....
1860	1, 150, 242	88, 869, 865	8, 277, 768	35, 519, 172	18, 597, 000	850, 000	3, 950, 000
1861	574, 905	82, 726, 743	9, 860, 555	21, 467, 054	18, 554, 000	137, 000	6, 000, 000
1862	575, 190	45, 877, 638	7, 973, 183	12, 214, 191	51, 770, 000	42, 000	6, 000, 000
1863	781, 137	22, 560, 400	15, 400, 154	11, 510, 064	56, 285, 000	25, 000	5, 925, 000
1864	3, 542, 203	20, 907, 082	6, 264, 060	15, 110, 406	20, 070, 000	148, 000	6, 005, 000
1865	408, 856	21, 561, 468	4, 325, 173	9, 714, 725	20, 065, 000	135, 000	6, 013, 000
1866	9, 067, 464	60, 768, 060	4, 281, 838	7, 615, 977	20, 069, 000	130, 125	3, 228, 003
1867	2, 471, 211	113, 191, 506	5, 732, 936	7, 767, 187	20, 071, 688	450, 068	5, 082, 541
1868	2, 725, 937	28, 832, 088	5, 059, 002	9, 416, 208	17, 510, 015	890, 005	4, 004, 002
1869 .....	.....	19, 745, 025	3, 138, 917	1, 967, 724	20, 328, 895	890, 006	5, 104, 860
1870	140, 685	10, 515, 166	3, 940, 720	5, 458, 555	26, 368, 016	400, 009	5, 000, 003
1871	58, 850	31, 925, 737	5, 658, 018	8, 390, 514	4, 600, 024	890, 005	5, 220, 498
1872	425, 542, 730	0, 160, 451	6, 783, 376	8, 624, 216	12, 069, 025	1, 000, 005	3, 500, 001
1873	590, 294, 290	2, 850, 295	5, 159, 003	11, 155, 180	15, 067, 953	700, 007	4, 501, 002
1874	93, 507, 880	46, 331, 621	4, 300, 948	9, 936, 833	25, 654, 315	700, 005	4, 276, 002
1875	166, 420, 600	114, 558, 995	3, 962, 242	14, 815, 063	21, 609, 025	700, 005	4, 400, 002
1876	159, 424, 500	211, 080, 189	5, 086, 076	18, 972, 053	30, 189, 049	.....	6, 017, 011
1877	112, 530, 500	46, 223, 000	7, 724, 193	16, 659, 863	33, 150, 024	.....	10, 747, 007
1878	124, 970, 080	0, 566, 800	5, 390, 000	28, 827, 000	34, 562, 048	.....	16, 861, 264
1879	46, 387, 060	453, 400	5, 146, 000	66, 677, 794	36, 125, 040	.....	8, 354, 866
1880	27, 992, 240	4, 531, 700	5, 102, 397	17, 811, 482	31, 300, 050	.....	7, 515, 268
1881	15, 521, 220	.....	5, 036, 268	22, 238, 107	27, 144, 051	.....	3, 608, 025
1882	13, 807, 080	.....	5, 870, 510	7, 787, 580	22, 735, 045	.....	435, 012
1883	88, 287, 470	2, 497, 750	5, 423, 042	13, 864, 678	30, 407, 050	.....	3, 877, 861
1884	57, 601, 740	480, 300	5, 101, 644	10, 848, 094	23, 126, 038	.....	1, 645, 012
1885	8, 148, 920	2, 428, 879	5, 792, 445	8, 605, 102	26, 802, 088	.....	1, 250, 022

Up to the close of 1885 the German Empire coined and withdrew from circulation coins as follows:

	Coined.	Withdrawn.	Remain.
<i>Gold coins.</i>			
Double crowns	<i>Marks.</i> 1, 446, 450, 300. 00	<i>Marks.</i> 717, 120. 00	<i>Marks.</i> 1, 445, 733, 180. 00
Crowns	455, 745, 800. 00	549, 580. 00	455, 195, 720. 00
Half crowns	27, 969, 925. 00	7, 965. 00	27, 961, 930. 00
Total gold coins	1, 930, 165, 925. 00	1, 274, 665. 00	1, 928, 890, 830. 00
<i>Silver coins.</i>			
Five-mark pieces	71, 653, 095. 00	4, 845. 00	71, 648, 250. 00
Two-mark pieces	102, 513, 678. 00	5, 558. 00	102, 510, 120. 00
One-mark pieces	171, 136, 108. 00	4, 439. 00	171, 131, 669. 00
50 pfennig pieces	71, 486, 532. 00	2, 098. 00	71, 484, 434. 00
20 pfennig pieces	35, 717, 922. 80	8, 000, 932. 00	27, 716, 990. 50
Total silver coins	452, 509, 355. 80	8, 017, 872. 00	444, 491, 483. 80

Of nickel coins (pieces of 10 and 5 pfennigs) there were coined 35,160,344.45 marks; withdrawn, 521.50 marks, leaving 35,159,822.95 marks in circulation. Of copper coins (pieces of 2 and 1 pfennigs) there were coined 9,682,671.58 marks; withdrawn, 32.99 marks, leaving 9,682,638.59 marks in circulation.

COINAGE—Continued.

Years.	France.		Belgium.		Italy.	
	Gold.	Legal-tender silver.	Gold.	Legal-tender silver.	Gold.	Silver, 5-lire pieces.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Lire.</i>	<i>Lire.</i>
1851.....	269,709,570	59,327,309	18,539,610	2,175,600	1,828,460	
1852.....	27,028,270	71,918,446	23,023,380	2,097,500	2,438,410	
1853.....	312,064,020	20,099,488	12,132,990	3,693,250	977,270	
1854.....	526,528,200	2,123,887		3,777,130	1,790,675	
1855.....	447,427,820	25,500,306		3,820,600	680,850	
1856.....	508,281,995	54,422,214		3,716,920	470,835	
1857.....	572,561,225	3,809,611		2,391,290	570,700	
1858.....	488,689,635	8,603,569	90,510	5,004,470	203,065	
1859.....	702,697,790	8,401,814		12,811,500	312,000	
1860.....	428,452,425	8,084,199		5,553,910	295,270	
1861.....	98,216,400	2,518,050		3,618,040	863,235	
1862.....	214,241,990	2,519,398		30,097,560	964,435	
1863.....	210,230,610	329,610		66,025,300		
1864.....	273,843,705	7,206,610		12,172,600	601,935	
1865.....	161,866,835	485,070	20,522,060	4,530,800	68,705,190	4,010,835
1866.....	365,082,925	189,465	10,639,260		3,126,020	2,351,760
1867.....	198,570,510	54,051,660	26,826,140	18,465,720	5,125,830	
1868.....	340,070,685	93,620,550	27,634,980	32,852,920	6,307,040	
1869.....	234,186,190	58,264,285	24,680,480	63,287,710	3,707,100	19,976,230
1870.....	53,304,800	53,618,350	63,824,060	52,340,375	1,095,400	29,845,780
1871.....	50,169,880	4,710,905	45,179,440	23,917,170	470,100	36,000,195
1872.....		389,190		10,225,000	63,100	35,611,920
1873.....		154,649,045		111,704,765	20,404,140	42,273,935
1874.....	24,319,700	59,906,010	60,927,000	12,000,000	5,919,420	60,000,000
1875.....	234,912,000	75,000,000	82,645,060	14,904,705	2,244,440	50,000,000
1876.....	176,493,160	62,661,315	41,393,640	10,799,425	2,154,560	31,951,715
1877.....	255,181,140	16,464,285	118,121,400		4,947,090	22,048,285
1878.....	185,318,100	1,821,420	51,108,000		6,345,280	9,000,000
1879.....	24,610,540				2,929,320	20,000,000
1880.....					2,590,660	
1881.....	2,167,000				16,860,560	
1882.....	3,742,000		10,446,200		139,522,040	
1883.....					4,067,500	
1884.....					322,100	
1885.....	289,400				3,291,680	

The coinage of subsidiary silver in France, Belgium, and Italy was:

Years.	France.	Year.	Belgium.	Years.	Italy.
	<i>Francs.</i>		<i>Francs.</i>		<i>Lire.</i>
1865.....	8,738,725	1852.....	60,128	1863.....	1,183,800
1866.....	44,031,944	1853.....	393,011	1868.....	32,082,874
1867.....	59,706,980	1858.....	173,050	1864.....	80,690,851
1868.....	35,824,718	1866.....	10,328,000	1865.....	41,987,107
1869.....	9,911,612	1867.....	14,737,000	1866.....	83,501,071
1870.....	15,402,906	1868.....	5,541,392	1867.....	16,530,146
1871.....	19,167,595	1869.....	1,398,608	1868.....	1,252,452
1872.....	26,449,180	1880.....	780,516	1881.....	8,281,688
1881.....	6,733,445	1881.....	210,484	1882.....	5,718,412
1882.....	1,159,860	1882-'85.....		1883.....	7,005,420
1883-'85.....				1884.....	10,994,580
				1885.....	697,546

The total coinages of the states of the Latin Union in coins of the franc system amounted, from the beginning of 1851 to the close of 1885, to:

Countries.	Years.	Gold coins.	Silver legal-tender coins.	Silver subsidiary coins.
		<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
France.....	1851 to 1863	5,242,760,580	275,500,181	8,738,725
	1866 to 1885	2,150,523,030	623,460,380	218,888,240
Italy*.....	1851 to 1863	243,090,860	15,707,915	105,850,192
	1866 to 1885	233,202,210	359,059,820	63,981,135
Belgium.....	1851 to 1863	20,522,060	58,323,290	628,189
	1866 to 1885	563,474,060	350,497,720	33,000,000
Switzerland.....	1851 to 1863		2,500,000	
	1866 to 1885	5,000,000	7,978,250	18,000,000

* In an appendix to the proceedings of the Monetary Conference of 1885, Italy is stated to have coined, from 1866 to 1883, 238,220,345 lire gold, and 359,581,300 lire silver.

COINAGE—Continued.

Year. *	Great Britain.		Australia.	United States.		Nether- lands.†
	Gold.	Silver.	Gold.	Gold.	Silver.	Silver.
						<i>Florins.</i>
1851.....	£4,400,411	£87,868	.....	\$62,614,492½	\$774,397	.....
1852.....	8,742,270	189,596	.....	56,846,187½	999,410	11,385,910
1853.....	11,952,391	701,544	.....	39,377,909	9,077,571	1,351,115
1854.....	4,152,183	140,480	.....	25,915,918½	8,619,270	18,565,549
1855.....	9,008,663	195,510	£512,500	28,977,968	3,501,245	12,243,588
1856.....	6,062,114	462,528	1,220,000	30,697,768½	5,135,240	7,623,024
1857.....	4,850,860	373,230	767,500	15,811,563	1,477,000	14,011,102
1858.....	1,231,023	445,896	1,343,000	30,252,725½	8,040,730	31,495,187
1859.....	2,649,509	647,004	1,221,000	17,299,077	6,187,400	15,103,956
1860.....	3,121,709	218,403	1,651,300	16,445,476	2,769,920	9,454,894
1861.....	8,190,170	209,484	1,719,250	60,692,227	2,605,700	10,266,520
1862.....	7,830,413	148,518	2,477,500	45,532,86½	2,812,401	10,361,083
1863.....	6,907,212	161,172	1,534,750	20,695,882	1,174,093	10,844,785
1864.....	9,585,597	535,194	2,698,500	21,649,845	548,214	10,684,946
1865.....	2,367,614	501,732	2,271,500	25,107,217½	636,308	12,139,785
1866.....	5,076,676	493,416	2,911,000	28,315,945	680,261	10,610,193
1867.....	496,397	137,842	2,401,000	28,217,187½	986,871	12,372,115
1868.....	1,653,384	301,356	2,319,000	18,114,425	1,136,750	12,132,133
1869.....	7,372,204	76,428	1,279,000	21,822,677½	840,746	12,740,480
1870.....	2,313,384	336,794	1,220,000	22,257,912½	1,767,254	16,590,618
1871.....	9,919,656	701,514	2,614,000	21,307,475	1,955,905	17,187,587
1872.....	15,261,442	1,243,836	2,741,000	20,376,495	3,029,834	33,540,945
1873.....	3,384,568	1,081,674	2,312,500	35,249,377½	2,945,795	13,787,682
1874.....	1,461,565	890,504	3,398,000	50,442,630	5,983,601	31,983,315
1875.....	243,204	594,000	4,010,000	33,553,965	10,070,368	.....
1876.....	4,690,648	222,354	3,767,000	38,176,902½	19,126,503	.....
1877.....	981,468	420,948	3,117,000	44,078,169	28,549,935	.....
1878.....	2,265,069	613,998	3,493,000	52,798,980	28,290,825	.....
1879.....	35,050	549,054	4,153,000	40,982,912	27,227,883	.....
1880.....	4,150,032	701,508	4,551,800	58,157,735	27,942,437	.....
1881.....	.....	997,128	3,736,800	78,733,864	27,649,967	.....
1882.....	.....	209,880	3,643,000	89,413,447½	27,784,389	.....
1883.....	1,403,713	1,274,328	3,268,000	35,936,927½	28,835,470	.....
1884.....	2,824,015	658,548	4,561,000	27,832,824	28,774,388	.....
1885.....	2,973,453	720,918	4,458,000	24,861,123½	28,848,960	.....

* For the United States, fiscal years ending June 30.

† In regard to the coinage of gold and of subsidiary silver in the Netherlands, see the notes *infra*.

The coinage of gold and silver in the United Kingdom was :

Years.	Gold.	Silver.
1851—'60	£56,129,133	£3,462,119
1861—'70	51,839,051	2,967,940
1871—'80	42,398,783	7,079,490
1881—'85	6,701,181	3,880,802

The Bank of England has withdrawn from circulation worn silver coins as follows :

1867—'70	£320,000
1871—'80	1,648,000
1881—'85	844,000

Worn silver has also been withdrawn in other ways during this time.

In Australia, the mint at Sydney began operations on May 15, 1855, and the mint at Melbourne on June 12, 1872. These are considered as branches of the Royal mint at London, and the Australian coins are all ways treated as British coins.

From the opening of the mints until the close of 1885 there was coined in Australia gold as follows : At Sydney, £52,460,000 ; at Melbourne, £29,311,100.

The tables given above include the total coinage of the silver in the United States, legal-tender dollars, trade-dollars, and subsidiary coins. The trade-dollars contain 378 grains of fine silver, and were originally intended only for use in the trade with the East; but they afterwards came into circulation within the country, and in recent years have been in the main withdrawn. The total coinage of silver may be divided as follows into the three classes of silver dollars, subsidiary coin, and trade-dollars :

Fiscal years.	Legal-tender silver dollars.	Subsidiary silver coins.	Trade-dollars.
1878	\$8,573,500	\$8,339,815	*\$25,969,800
1879	27,227,100	382	.....
1880	27,933,750	8,087	.....
1881	27,637,955	12,012	.....
1882	27,772,075	11,314	.....
1883	28,111,119	724,351	.....
1884	28,099,930	673,458	.....
1885	28,528,552	320,408	.....

*1874 to 1878 inclusive.

For the Netherlands the table (on p. 62) states, for the years 1851-1870, the total coinage of silver; for 1871-1874, only the coinage of legal-tender silver. Since 1875 there has been no legal-tender coinage of silver whatever. The subsidiary coins, of the denominations of 5 and 10 cents, have been coined as follows :

Years.	Florins.	Years.	Florins.	Years.	Florins.
1871	100,000	1877	100,000	1881	200,000
1873	100,000	1878	100,000	1882	200,000
1874	100,000	1879	110,000	1884	100,000
1876	110,000	1880	100,000	1885	200,000

In addition to this there were coined for the East Indian colonies:

Years.	$\frac{1}{2}$ -florin pieces.	$\frac{1}{4}$ -florin pieces.
1882	Florins. 750,000	Florins. 550,000
1883 .....	.....	200,000
1884	355,000	.....
1885	82,500	437,506

The gold coined in the Netherlands has been as below. Excluded from the figures are the ducats and the Wilhelmd'or, which are trade coins (ducats in 1871-1885, 387,324 pieces; Wilhelmd'or in 1851-1853: 2,676 pieces double, 10,000 pieces single, and 10,000 half pieces). The coinage of legal-tender 10-gulden pieces was:

Years.	Florins.	Years.	Florins.
1875	41,110,000	1879	5,810,800
1876	15,811,000	1880	501,000
1877	11,081,490	1885	670,950

Of legal-tender silver there were coined, according to the provisions of the coinage law of 1839, about 461,000,000 gulden, up to the close of this coinage. It turned out later that by far the largest part of these coins, more than 300,000,000, had been exported. Of gold coins the total hitherto has been 74,984,860 gulden, of which, however, but a comparatively small part remained at the close of 1880 within the country. It is worth noting that the silver for subsidiary coins issued since 1882 has been obtained by melting down the pieces of 2½ gulden, and not by the purchase of bullion. An act of March 4, 1884, authorizes the Government, in case the gold held by the bank should become considerably reduced, to melt down 25,000,000 of legal-tender silver gulden, and by their sale to secure gold.

The coinage in Denmark, Sweden, and Norway, since the adoption of the single gold standard, has been :

Countries.	Gold.			Silver.		
	Till Dec. 31, 1880.	From Jan. 1, 1881, to Dec. 31, 1885.	Total.	Till Dec. 31, 1880.	From Jan. 1, 1881, to Dec. 31, 1885.	Total.
	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>
Denmark	84,754,640		84,754,640	18,148,230	207,557	18,355,787
Sweden	38,872,440	6,889,175	45,861,615	12,827,559	3,714,726	21,062,785
Norway	13,127,610	719,060	13,846,670	4,740,500		
Total	86,754,690	7,708,235	94,462,925	35,516,289	3,922,283	39,438,572

In Finland there were coined up to the close of 1885, 21,900,000 marks gold and 13,189,750 marks silver.

Coinage in Spain has been, from 1876 to the close of 1885 :

	<i>Pesetas.</i>
Gold	921,654,890
Silver 5-peseta pieces	411,643,030
Silver subsidiary coins	185,555,188

In the years 1882-1885 there were coined :

Years.	Gold coins.	Silver 5-peseta pieces.	Silver subsidiary coins.
	<i>Pesetas.</i>	<i>Pesetas.</i>	<i>Pesetas.</i>
1882	10,343,575	8,809,080	49,924,838
1883	16,721,425	27,537,295	15,062,249
1884	25,618,700	29,239,095	5,677,964
1885	12,565,325	15,722,240	3,336,382

Portugal coined between 1854 and the close of 1882, 6,073,002 milreis of gold and 8,817,436 subsidiary coin. Since 1882 the coinage has been :

Years.	Gold.	Copper subsidiary coin.
	<i>Milreis.</i>	<i>Milreis.</i>
1883	201,000	516,150
1884	173,000	454,530
1885	228,900	468,830

For Greece, Roumania, and Servia, foreign mints coined, on the franc system, the following amounts :

Countries.	Gold coins.	Silver 5-franc pieces.	Subsidiary silver.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Greece	12,000,000	15,482,865	10,800,000
Roumania	3,805,000	47,700,000	30,500,000
Servia	10,000,000	1,000,000	3,500,000

No trustworthy conclusions can be reached as to the present production of the precious metals, or as to the production in the immediate past, by adding together the coinages of the different countries. Account must be taken of the coins withdrawn by various States, such coins being generally recoined. In most countries material for silver coins has been obtained in recent times mainly by melting down older coins. For instance, Germany recoined between 1872 and 1879 about 2,200,000 kilograms of silver, and Italy recoined from 1862 to 1883 about 2,500,000 kilogram of silver. The same process took place in England between 1867 and 1885, involving nearly 3,000,000 pounds of the older English silver coins.

Coinage in Mexico and the South American States is in the main simply a means for levying a tax on the domestic production of silver; and the piasters and pesos of those countries are to be treated as merchandise.

The coinage of half-imperials in Russia is quite needless, since a depreciated paper money is in circulation, and the large annual payments of gold for interest abroad could be met as easily and as cheaply by gold bars as by half-imperials. Between 1851 and 1885 there were coined in Russia 806,000,000 of rubles in half-imperials (=967,025 kilograms gold fine). A very small proportion of this amount can have escaped being melted down in foreign countries.

Large quantities of the gold coins of other States also, coined originally for domestic use, have been melted down and recoined at foreign mints, as is abundantly proved by the records of those mints. The supply of coin within the country therefore, can be ascertained from its coinage statistics only if account be taken of the proved or probable recoinage abroad and of the probable use in the arts.

The case is different with subsidiary coins, since there can be no exportation or melting down of these.

The value of the gold and silver coined in the more important civilized countries was as follows :

BY COUNTRIES.

Countries.	Periods.	Gold.	Silver, nominal value.	Gold.	Silver.
		<i>Marks.</i>	<i>Marks.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Great Britain and Australia	1851-'85	4,879,302,000	360,883,000	93.1	6.9
United States	1851-'85	5,845,182,000	1,498,497,000	78.1	21.9
France	1851-'85	5,988,560,000	914,240,000	86.7	13.3
Belgium	1851-'85	473,037,000	858,382,000	56.9	43.1
Italy	1851-'85	385,797,000	457,325,000	45.8	54.2
Netherlands	1851-'85	131,605,000	578,608,000	18.5	81.5
Germany	1857-'85	1,959,881,000	1,163,733,000	62.7	37.3
Austro-Hungary	1857-'85	341,824,000	1,025,784,000	25.0	75.0
Russia	1851-'85	2,716,314,000	586,050,000	82.3	17.7
Scandinavian countries	1871-'85	106,158,000	42,594,000	71.4	28.6
Spain	1876-'85	746,541,000	483,731,000	60.7	39.3
Portugal	1854-'85	80,278,000	26,372,000	45.4	54.6
Total	1851-'85	23,104,429,000	7,506,199,000	75.5	24.5

BY PERIODS.

Periods.	Gold.	Silver, nominal value.	Gold.	Silver.
	<i>Marks.</i>	<i>Marks.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1851-'55	3,331,106,000	457,580,000	87.9	12.1
1856-'60	3,587,387,000	922,290,000	79.5	20.5
1861-'65	3,130,764,000	707,430,000	81.6	18.4
1866-'70	2,578,198,000	1,172,180,000	68.7	31.3
1871-'75	3,791,344,000	1,387,908,000	73.2	26.8
1876-'80	3,888,634,000	1,738,490,000	69.1	30.9
1881-'85	2,798,998,000	1,120,312,000	71.4	28.6
Total	23,104,429,000	7,506,198,000	75.5	24.5

The preceding tables, from which the very large coinage in Mexico and British India is intentionally excluded, represent in weight of fine metal about 8,281,000 kilograms of gold and 42,000,000 kilograms of silver, whereas the total production of the precious metals in the period 1851-'85 may be estimated at 6,400,000 kilograms of gold and 57,600,000 kilograms of silver. As already stated, a considerable part of the coinage consists in the recoinage of older coins. Yet, even when this is taken into consideration, there remains no doubt that in the last thirty-four years very large parts of the gold and silver coined in civilized countries have been melted down or exported to the East, and have thereby disappeared from the monetary supply of the civilized countries.

ABRASION OF COINS.

The loss which the monetary supply of the precious metals suffers from the abrasion of coins is constant and inevitable. Yet it is by no means so important as was assumed in former statistical compilations. W. Jacob estimated it for gold coins at $\frac{1}{2}$ of 1 per cent. per year; for silver coins, as high as $\frac{3}{4}$ of 1 per cent. per year; and he believed that, starting with an assumption (quite arbitrary) as to the probable supply of the precious metals at the time of the Emperor Vespasian, he could calculate the loss from that time up to the discovery of America. Careful investigations have been repeatedly made on this point in modern times, the results of which we have collected and published, and which show that the loss from abrasion is comparatively insignificant. This is particularly true at the present time, in consequence of improvements in coinage and the development of banking, more especially for those large gold coins which form the great mass of the general monetary supply of gold. Extended investigations in France and in Switzerland have shown that the average annual loss through abrasion on 20-franc pieces is about $\frac{1}{4}$ per thousand; and exact weighings of large sums of German double-crowns, which had been several years in circulation, showed an annual loss of only $\frac{1}{4}$ per thousand. That is to say, on the average thirty-five years must elapse before gold pieces lose one-half of their original standard weight. After the first years of circulation, when the coinage marks are already somewhat smoothed off, the abrasion naturally becomes less. On the other hand, smaller gold coins suffer more from abrasion, since the space which they present is comparatively larger, and they pass more frequently from hand to hand.

The question of the abrasion of gold coins has latterly attracted much attention in England and has led to repeated careful investigations, which seem to indicate that the opinion just expressed of the slight importance of this consumption of gold must be modified. The Bank of

England, as is well known, weighs every gold coin presented to it, and cancels those under weight. The consequence is that gold coins which are nearly under weight are rarely presented to the bank, but remain in circulation indefinitely, and constantly lose more and more in weight. Mr. Jevons calculated, on the basis of actual weighings, that the annual average abrasion of the sovereigns in circulation amounted to one-third to one-fourth per thousand, while that of half sovereigns was more than one per thousand; and he concluded that a very considerable proportion of the gold coins circulating in the United Kingdom were under weight. Later investigations, especially those made by Mr. J. B. Martin in 1882, have confirmed this conclusion. It will be remembered that the chancellor of the exchequer last year openly admitted the need of a general recoinage of the smaller gold coins, and proposed, as a means of covering the expenses of the operation and of the future maintenance of the standard, the reduction of the half sovereigns to the status of subsidiary coins, making them legal tender only for sums up to £5. This proposal met with little favor, and is not likely to be carried out.

The investigations just referred to indicate that of a total circulation in the United Kingdom (exclusive of what is in the Bank of England) of about £80,000,000 sovereigns and £20,000,000 half sovereigns, about £44,000,000 sovereigns and £11,000,000 in half sovereigns have become under weight. Messrs. Jevons and Freemantle put the annual loss by abrasion at £22,000 for the sovereigns and £13,000 for the half sovereigns. The withdrawal and recoinage of the underweight pieces therefore would involve a considerable loss. It must be remembered, however, that the loss of actual gold would probably be diminished by the fact that some overweight coins were melted down at the outset by private individuals, and that a certain loss in weight of the coins is the result of clipping, and therefore causes no real diminution in the supply of gold. The comparison of the underweight coins, therefore, with the regular standard does not represent a complete loss.

Taking all things into consideration, we believe that we may adhere to the conclusion that the annual loss by abrasion on the total monetary supply of 13 milliards of marks gold in civilized countries is certainly not more than 700 to 800 kilograms gold. The diminution of the supply of the precious metals by accidental losses may be left out of account; for it is likely to be compensated by the discovery of sums formerly concealed, of which in many cases nothing is heard, and which at all events are not considered in the statistics of the production of the metals.

The loss which silver suffers through abrasion, especially in the case of subsidiary coins, is for obvious reasons much greater than in the case of gold coins. Yet it is by no means so large as was formerly supposed. If it were set as high as 50,000 kilograms per year in civilized countries, all accidental losses included, the estimate would probably be too high rather than too low; and this sum is not 2 per cent. of the present annual production of silver.

As a proof of the great interest which is felt in England in regard to the protection of their coins from abrasion, we mention the following careful investigations which have appeared in recent years on this subject (in the Institute of Bankers in London): Our Gold Coinage, an inquiry into its present defective condition, etc., by J. Biddulph Martin, *Journal of the Institute*, June 1882. The Deficiency of Weight in our Gold Coinage, by R. H. Inglis Palgrave, *Journal*, March, 1883. Seniorage and Mint Charges, by J. B. Martin, *Journal*, April, 1884. The Gold Coinage, Position of Matters at the Present Time, by R. H. Inglis Palgrave, *Journal*, December, 1884.

2. CONSUMPTION OF THE PRECIOUS METALS IN THE ARTS.

The use of the precious metals as money has always been by far their most important use in civilized countries, and has been the foundation of their great value. Side by side with it, however, has continued their use for plate, for ornament, and for various purposes in the arts. The transition from one use to another has been constant. Large quantities of coins and bars are continually withdrawn from use as money; and, on the other hand, gold and silver plate and ornament are frequently melted in order to be turned into money. In due course of time we shall give an approximate estimate of the present monetary supply of the civilized countries; but we shall not venture to give an estimate of the probable supply of gold and silver plate and ornament in the world at large, or in individual countries. But it is worth while to try to ascertain the annual use of gold and silver in civilized countries in the arts, including their use in the fine arts, for ornament, for plate, and in the arts at large, although it is exceedingly difficult to calculate, and ascertainable only with wide limits of error; for it is connected with points of essential importance in the question of standards. Four years ago we published a statistical investigation of this subject in an article entitled *The Consumption of Gold and Silver* (*Jahrbücher für National-ökonomie*, new series, Vol. III). We treated the subject with all the care possible in face of the lack of materials; and the estimates then made by us have been frequently cited. We had hoped that other, more detailed, estimates would be added, but this hope remains as yet unfulfilled, except in the investigations which Mr. Burchard, of the United States Mint, made in recent years on the increasing use of the precious metals in the arts in the United States. Notwithstanding the uncertainty of these estimates, recent investigations have nevertheless made it plain that this consumption of the precious metals is considerably larger than had before been supposed.

In no country have the statistics on the use of the precious metals in the arts been so carefully handled as in the United States. In the fiscal year 1878-'79 all manufacturers who could be supposed to use gold or silver for plate, jewelry, watch-cases, plating, or in chemical processes, were asked by circular letters to give information as to the extent and character of their consumption. Answers were obtained to 1,401 out of 3,506 letters, 448 answers giving the desired information. Mr. Burchard believed that from this and other sources he could estimate the annual consumption of gold at \$7,000,000 and the annual consumption of silver at \$5,000,000. In his annual report for 1883-'84 he says:

"In order to obtain fuller information in regard to the use of the precious metals in the arts, circular letters were again sent to all persons and firms on whose part a consumption might be expected. The number of these letters was 7,969. Answers were received to 5,418 letters, from which it appeared that 2,734 persons or firms used gold to the value of \$14,500,000 (21,800 kilograms fine) and silver to the value of \$5,500,000 (132,000 kilograms fine)."

The superintendent of the assay office in New York reports that the value of the bars delivered during the fiscal year 1883 for presumable uses in the arts was, gold \$4,615,118 and silver \$5,205,996. The value of the precious metals used by manufacturers in the form of stamped United States or refinery bars was \$7,137,711 gold and \$4,551,172 silver.

This seems to indicate an increase in the consumption of gold and silver in the arts, especially in the form of United States gold coins and stamped United States or refinery bars. It seems probable that in the year 1883 \$6,000,000 gold and \$4,500,000 silver were taken from the domestic production for use in the arts.

We give below a more detailed statement of the industrial use of the precious metals in the United States for 1883, indicating both the form in which the metal was consumed and the purpose for which it was used. The tables are taken from Mr. Burchard's reports.

Statement showing the value and character of the gold and silver used in the arts and manufactures during the calendar year 1883.

[As reported by the persons and firms who had been addressed.]

GOLD.

Manufactures.	Number manufacturing.	United States coin.	Stamped United States or refinery bars.	Old jewelry plate, and other old material.	Foreign coin.	Native grains, nuggets, etc.	Wire or rolled plate.	Total gold.
Watch-cases	32	\$575,812	\$2,976,550	\$38,101	\$1,508	\$520	\$5,817	\$3,598,308
Watch-chains	14	374,997	286,484	1,907	600	135,410	27,202	827,000
Dental supplies	7	700	88,437	8,775	.....	.....	.....	97,912
Pens	14	14,578	90,325	8,100	5,227	2,134	27,560	145,924
Instruments	45	68	.....	8,568	.....	621	942	8,199
Leaf	51	178,424	792,551	57,498	6,816	6,700	42,835	1,084,824
Plate	219	879,291	67,828	5,500	590	8,833	68,086	528,868
Spectacles	41	192,400	7,169	8,830	1,815	4,987	727	245,428
Chemicals	27	7,488	7,685	8,551	550	207	12,180	81,611
Jewelry and watch-makers' supplies	11	24,408	13,983	9,123	.....	1,560	80,054	79,227
Jewelry and watches	2,273	3,125,738	2,861,149	738,638	177,794	541,306	458,745	7,905,163
Total	2,734	4,875,587	7,137,661	876,641	194,400	702,387	672,688	14,459,464

SILVER.

Manufactures.	United States coin.	Stamped United States or refinery bars.	Old jewelry plate, and other old material.	Foreign coin.	Native grains, nuggets, etc.	Wire or rolled plate.	Total silver.	Total gold and silver.
Watch-cases	\$35,200	\$1,777,193	\$31,937	\$219	\$1,000	\$50	\$1,845,599	\$5,443,907
Watch-chains	524	14,768	.....	.....	0,790	1,462	23,544	850,544
Dental supplies	450	6,060	.....	.....	.....	228	6,738	44,650
Pens	216	4,254	100	1,655	505	.....	6,730	152,654
Instruments	931	3,752	693	755	864	6,995	13,990	19,189
Leaf	11	22,697	4,107	306	835	18,933	46,863	1,131,707
Plate	16,856	1,710,515	40,761	7,690	8,495	251,977	2,066,294	2,595,163
Spectacles	8,631	16,461	1,254	205	250	1,981	23,782	239,210
Chemicals	9	375,429	35,554	500	1,580	8,847	416,419	448,030
Jewelry and watch-makers' supplies	245	4,806	800	.....	1,505	975	8,331	87,558
Jewelry and watches	158,564	616,237	106,745	142,949	49,733	23,992	1,098,220	9,003,383
Total	216,637	4,552,172	221,951	154,273	71,557	339,940	5,556,530	20,015,964

Of the persons and firms to whom circulars were addressed 2,551 sent no answer; but it does not follow from this that they made no use whatever of the precious metals. It has therefore been thought that the consumption in the arts in the United States is considerably larger than the Director of the Mint states. But, on the other hand, doubt has often been expressed whether many manufacturers might not have overstated

their consumption, in which case the computed total would exceed the actual consumption. But this doubt is officially declared to be unfounded. It is to be hoped that these inquiries will be continued, and that they will yield trustworthy information in regard to the use of gold and silver in the arts in the United States.*

In regard to the consumption in other countries we state a few significant facts, referring for further information to the essays already mentioned (Jahrb. f. N. O. und Stat., N. F., Vol. III, 1881).

*We gave above the conclusion reached by the former Director of the Mint at Washington in regard to the industrial consumption of the precious metals in the United States in 1883. Since this was printed we have received from the present Director of the Mint, Mr. Kimball, a corresponding statement for the year 1885, which is to be printed in the next annual report. Mr. Kimball writes:

"Circulars were sent to about 8,000 individuals and firms whose business led him to suppose that they were consumers of gold and silver in the industrial arts. Responses were received from 4,372 firms, of which 2,700 proved to be consumers. The value of the gold used by the 2,700 firms during the calendar year 1885 was reported as follows, namely: \$10,837,944 against \$14,500,000 reported by about the same number of firms to the Director of the Mint in 1884. Of this amount about \$2,800,000 consisted of United States coin and about \$6,000,000 of stamped United States bars. The foreign coin used amounted to \$178,000 and old jewelry to \$819,000, leaving only \$467,000 of native grains and \$559,000 of wire and rolled plate.

"The silver consumption reported by the same firms was \$3,470,000, of which \$124,910 consisted of United States coin, \$2,773,975 of United States refinery bars, \$40,000 of foreign coin, and \$219,000 of old jewelry, plate, etc., leaving only \$94,000 of native grains, and about \$217,000 of wire and rolled plate.

"The result of this inquiry leads to the conclusion either that the consumption of gold and silver in the industrial arts has fallen off since 1883, or that there is less duplication in the returns than heretofore as between original and secondary manufacturers.

"Having the benefit of the previous lists of jewelers and others, and a recent edition of Zell's Business Directory, names were selected of persons only who had either replied heretofore or who the Director had reason to believe were engaged in the manufacture at first hand of gold and silver materials."

Statement showing the value and character of the gold and silver used in the arts and manufactures during the calendar year 1885, as reported by the persons and firms who have been addressed.

GOLD.

Manufactures.	United States coin.	Stamped United States or refinery bars.	Old jewelry, native grains, foreign coin, and other material.	Total.
Chemicals	\$32, 040	\$18, 903	\$10, 433	\$56, 376
Platers	251, 741	210, 831	215, 143	677, 715
Gold pen manufactures	7, 433	34, 886	14, 136	56, 455
Gold and silver leaf	58, 150	527, 453	91, 751	677, 354
Dental and surgical instruments, etc.	3, 970	149, 186	21, 630	174, 786
Spectacles and opticals	52, 557	62, 420	19, 316	134, 293
Miscellaneous	116, 604	44, 168	30, 172	190, 944
Jewelry and watches	2, 266, 577	4, 980, 458	1, 622, 841	8, 869, 876
Total	2, 789, 072	6, 023, 305	2, 025, 422	10, 837, 799

SILVER.

Chemicals	\$91	\$305, 165	\$75, 832	\$381, 088
Platers	27, 824	1, 166, 463	108, 345	1, 392, 632
Gold pen manufactures	55	3, 191	812	4, 058
Gold and silver leaf .....	.....	21, 881	24, 240	46, 121
Dental and surgical instruments, etc.	4, 682	107, 717	15, 402	127, 801
Spectacles and opticals	2, 487	42, 424	4, 037	48, 948
Miscellaneous	838	5, 330	1, 355	7, 523
Jewelry and watches	90, 933	1, 121, 804	254, 505	1, 467, 242
Total	126, 910	2, 773, 975	574, 528	3, 475, 413

In Great Britain the tax returns indicate in recent years a use of no more than 24,000 ounces of gold and 800,000 ounces of silver for manufacturing purposes. But this is no indication of the total consumption in the arts, since the most important uses are not subject to taxation; for instance, for watch cases, chains, rings, buttons, clasps, gold leaf, gilding, gold wire. The same holds good of the use of silver. In the report of the parliamentary commission of 1876 it is estimated that £600,000 of silver and from £250,000 to £500,000 of gold are consumed annually, which is certainly too low an estimate. Inquiries at Birmingham, in 1881, among men of business whose judgment might be trusted, led to the conclusion that the annual consumption of gold in that place was about 300,000 ounces. An estimate putting the consumption in the arts in all forms at 20,000 kilograms gold and 90,000 kilograms silver, of which 15 and 20 per cent., respectively, come from old material melted down, will certainly not be too high. Higher estimates have been made. It is to be hoped that English statisticians may not be deterred by the impossibility of getting more than approximate statements, from inquiries as to the present use in the arts in the United Kingdom.

In regard to France the following estimates were laid before the International Monetary Conference of 1881:

The annual consumption of gold by goldsmiths and jewelers was put at 14,000 kilograms (average .740 fine), or 35,600,000 francs. A considerable part escapes taxation ($\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$?, say $\frac{1}{3}$), 2,800 kilograms, or 7,100,000 francs. Manufacture of medals (.916 fine) consumes 100 kilograms, or 314,000 francs. Total, 16,900 kilograms, or 43,014,000 francs.

The gold used at Paris by refineries for certain kinds of gilding amounted, on the average, for the years from 1872 to 1880, to 684 kilograms fine.

If we add to these sums the quantities of gold which are used in other forms, for instance, for gold leaf, gold wire, and smaller articles not subject to taxation, in regard to which we have no data, we shall find that our earlier estimate of an annual use in the arts in France of 21,000 kilograms gold and 100,000 kilograms silver (of which 20 and 25 per cent., respectively, came from old materials) was not too high.

The gold and silver articles declared for taxation by the Bureaux de Garantie were as follows:

Periods and years.	Gold articles.	Silver articles.	Periods and years.	Gold articles.	Silver articles.
	<i>Kilograms.</i>	<i>Kilograms.</i>		<i>Kilograms.</i>	<i>Kilograms.</i>
1861-'70	11, 089	60, 225	1880	12, 843	75, 508
1871-'75	10, 708	64, 478	1881	14, 534	82, 091
1876	11, 635	72, 054	1882	14, 264	82, 201
1877	11, 191	70, 398	1883	12, 771	82, 255
1878	12, 722	76, 385	1884	10, 750	75, 282
1879	12, 407	73, 795	1885	9, 390	74, 466

Probably an addition of 20 per cent. at least must be made for articles exported or not declared.

A statement kindly furnished by the Department of Coins and Medals in March, 1886, says that the gold and silver annually used in France in the arts amounts to 15,500 kilograms gold and 145,500 kilograms silver.

For medals there were used, in the five years 1880 to 1884, on the average, 106 kilograms gold and 2,520 kilograms silver annually.

For Switzerland we refer to the following statements made by the Swiss delegates to the International Monetary Conference of 1881. In Geneva the largest refining establishment of the place had delivered 7,573 kilograms of gold of various degrees of fineness in 1880, 7,000 kilograms being for Swiss use. But it had used about 3,000 kilograms of old gold derived from Switzerland. The remaining refining establishments of Geneva had delivered about 3,000 kilograms gold. On the whole, it was supposed that between 7,000 and 8,000 kilograms gold (over and above remelted material) were annually used in Geneva, having a value of 21,000,000 francs. Add about 6,000,000 francs for gold melted by the manufacturers themselves, and we have a consumption of 27,000,000 francs in Geneva alone. The consumption at Neuchâtel might be put at 15,000,000 or 16,000,000 francs, of which, however, about 2,000,000 francs came from Geneva and should be deducted. For the whole of Switzerland the annual use in the arts might be put at about 40,000,000 francs, or 11,600 kilograms fine gold. This estimate agrees, on the whole, with our own estimate, made five years ago, which put the annual consumption of gold in the industries of Switzerland at 15,000 kilograms gross, or, after deduction made for remelting, at 11,250 kilograms net.

An independent estimate has been sent us which arrives at the use of gold in Switzerland for the year 1884 as follows:

	Kilograms fine.
Net deliveries by the refineries of Geneva.....	6,000
Gold pieces melted in factories at Geneva.....	600
Consumption at Neuenburg.....	3,400
Estimate for the Jura district, the canton of Berne, and the rest of Switzerland.....	1,200
Total.....	11,200

This estimate agrees upon the whole with the preceding. It should be mentioned, however, that more recent estimates received by us indicate that the industrial consumption of gold in Switzerland has become considerably smaller in the last three years.

The use of the precious metals in the arts in Germany is considerable. A large part of it appears in an export of articles of gold and silver, and especially of manufactures of various kinds containing gold.

We were informed that no exact statement could be given of the consumption of the precious metals by the jewelers and goldsmiths in the district of Pforzheim. In former times the number of workmen employed was a good indication of the quantity of metal consumed, but the extension of the industry of the district to finer articles and to plated ware has caused the number of workmen to be no longer a safe indication. Estimates from persons who are in a position to judge put the average annual consumption at Pforzheim during the years 1876-'80 at about 3,500 kilograms fine gold, and at the same quantity of silver. An estimate for subsequent years has been sent us, and is as follows:

Years.	Fine gold.			Fine silver.		
	Kilograms.	Per kilo-gram.	Total.	Kilograms.	Per kilo-gram.	Total.
		<i>Marks.</i>	<i>Marks.</i>		<i>Marks.</i>	<i>Marks.</i>
1881.....	4,000	2,820	11,280,000	5,000	155	775,000
1882.....	4,000	2,820	11,280,000	6,000	155	930,000
1883.....	4,000	2,820	11,280,000	7,000	155	1,085,000
1884.....	3,000	2,810	8,430,000	7,000	150	1,050,000

This material was obtained partly from refineries of Pforzheim and other places, and partly by melting all sorts of coins, among them many 20-mark pieces.

The increase in the use of silver in recent years is to be explained by the larger production of silver and of plated articles, while the decrease in the use of gold results from the fact that 13½-karat articles are used less than formerly, and 8 and 18 karat articles are used more.

A statement received from the Board of Trade of Pforzheim for the year 1885, says:

The export of manufactures of the precious metals decreased in 1885. The export of ornamental silver articles has shown a noticeable decline, which may be explained partly by a change in fashion, partly also by the overproduction in England, which floods foreign markets and causes English articles to be sold almost at cost. The estimate of 7,000 kilograms silver for 1884 can, therefore, no longer be retained; the quantity for 1885 does not exceed 5,000 kilograms. On the other hand, the estimate as to gold may stand. Although the year 1885 was less active than the preceding year in the production of gold articles, yet the estimate of 3,000 kilograms was a very conservative one; and moreover, the recent demand for handsome solid articles with genuine stones and 18-carat setting has been large.

The annual consumption at Hanau and neighborhood was estimated four years ago at about 3,200 kilograms gold (9,000,000 marks) and 1,400 kilograms silver (224,000 marks.) For the years 1881-84 the consumption of gold fell to 2,900 kilograms, while that of silver rose. The gold consisted almost exclusively of German and foreign gold coins, only 10 per cent. coming from gold bars; while silver is used exclusively in the form of pure metal. A recent communication says:

Since gold jewelry is made almost exclusively from gold coins, there are no means of calculating with exactness the consumption of gold from year to year. We believe that in 1885 this consumption has again decreased about 10 per cent. as compared with preceding years. The export of gold articles to the United States ceased entirely after the increase in the import duty in that country.

For the gold and silver factories of Gmünd and Schorndorf, and in the district of Stuttgart, the annual consumption was estimated a few years ago at about 1,100 kilograms gold and 6,500 kilograms silver. No essential change seems to have taken place since then. The old gold remelted in this district is inconsiderable.

The gold and silver factories of Berlin seem to have consumed annually about 500 kilograms gold and 12,500 kilograms silver in recent years. In 1885 the consumption diminished somewhat. A considerable change has taken place during the last six years in the production of gold ornaments in the large European cities. Large massive jewels are no longer in demand, but diamonds, pearls, and especially rubies and sapphires, in light gold settings, are sought for. This change in fashion must have led to a decrease in the consumption of gold. Diamonds are set in silver more than in gold. The sale of jewelry has increased largely, but that of more expensive articles of silver has diminished. The latter circumstance is the result of the fashion of decorating tables with artistic articles in bronze. Moreover, the improvements in the production of plated ware and the greater attention paid to modeling and chiseling, which causes plated ware to be not unfrequently of higher artistic merit than solid ware, has led to a decrease in the use of silver.

The gold factories of Bremen and Hamburg inform us that their annual consumption of gold is about 64 kilograms. Over and above this we are informed that the present consumption of gold and silver in Hamburg is about 40 kilograms gold and 3,000 kilograms silver. Of the gold, about 10 kilograms come from the refinery, 15 kilograms from

coins melted down, and 15 kilograms from the remelting of gold articles. Of the silver, about 2,000 kilograms comes from the refinery and 1,000 kilograms from remelting old silver.

The silver factories at Heilbronn used annually, from 1881 to 1883, 9,030 kilograms silver, and in the year 1884 alone 12,300 kilograms silver. Only 400 kilograms came from old silver remelted. The consumption of gold is no more than 15 kilograms per year. In 1885 one large factory in this place consumed 10,700 kilograms silver, in value 1,675,000 marks, and shipped abroad 700,000 marks' worth. Two silver factories at Bremen consumed :

	Kilograms fine silver.
1881	10,320
1882	10,380
1883	11,294
1884	11,900
1885	12,077

The use of silver in the arts is here increasing gradually. The old silver remelted amounted to no more than 300 to 430 kilograms annually. The production of silver forks and spoons has been increasing from year to year.

The production of gold leaf and gold wire forms an important part of the use of the precious metals in the arts. The chief seat of this manufacture is Nürnberg and the neighboring country. The annual consumption of the establishments in that region for the years from 1881 to 1884 may be set between 1,100 and 1,250 kilograms fine gold and 10,500 to 12,000 kilograms fine silver. Fine gold is used almost exclusively, and is obtained from the refineries of Frankfurt and Hamburg. About 80 per cent. of the gold is used for gold leaf and 20 per cent. for wire and for colors on china. In 1885 an approximate estimate puts the gold for gold beating at about 1,000 kilograms and that for wire and gold lace at 100 kilograms, while the consumption of silver was 7,000 kilograms. In this estimate, however, the metal bought from outside concerns is not included. Next to Nürnberg, Dresden produces gold leaf in greatest quantity. In each of the two years 1882 and 1883, seven establishments at Dresden used about 1,600 ducats per week, which would make 280 kilograms of fine gold per year.

The production of gold leaf has not increased in recent times—a circumstance attributable to the increase in the production of imitation gold leaf.

The statistics of occupations in the German Empire, according to the enumeration of June 5, 1882, have a class entitled "Manufacturers of the precious metals (goldsmiths, jewelers, gold and silver beaters, gold lace makers, mints)." In these occupations there were employed in the German Empire:

	Total.	In the principal seats of the industry.
Employers and superintendents	5,821	2,078
Working at their houses on account of others	730	581
Administrative officers, clerks, etc	588	429
Other workmen and employés	22,960	17,005
Total	30,079	20,093

The estimates presented above indicated that, in the principal seats of the industry, where the consumption takes place chiefly in factories

and in large quantities, the consumption in recent times amounted to 11,000 kilograms, fine gold per year. This does not include the consumption for other industrial purposes in these same districts, for instance, at Nürnberg. We may assume that, for those whom the census states to be employed elsewhere, about 5,500 kilograms gold should be added. This would bring the probable total use of gold in the arts in Germany to about 16,500 kilograms. But this estimate seems too high. It is true that the factories of gold and silver articles at Munich, Hamburg, Breslau, Liegnitz, Idar, and elsewhere, use appreciable quantities of gold and silver, and every establishment must consume something, be it ever so little; yet, taking one thing and another into account, this accessory consumption of gold, as it may be called, can be set at 2,000 to 2,500 kilograms gold. This estimate we made in earlier publications. On the other hand, a consumption of more than 1,000 kilograms must be added for various preparations used in gilding (for porcelain, picture frames, wall paper, etc.); this being over and above the pure gold leaf already taken into account. Comparatively little silverware has been used in the last twenty-five years in the retail shops. The articles sold in them, such as spoons, forks, chains, thimbles, boxes, are generally obtained from the large factories at Heilbronn, Dresden, and elsewhere.

All told, we may estimate the consumption of gold and silver in the arts in Germany at about 15,000 kilograms gold fine, and 110,000 kilograms silver fine. Of the silver about 12,000 kilograms is consumed in making oxide of silver, used mainly by photographers.

To separate out of this total quantity the proportion which comes, not from coins melted down or from fresh bars, but from the remelting of old metal, is a task to be solved with great difficulty and caution. We must consider not only the gold and silver articles melted down by the manufacturers, but also those used in the refineries from which they buy their fine gold and fine silver; although, as detailed reports from these establishments show, this latter quantity is not considerable.

The consumption of gold and silver in the arts in Germany exceeds considerably the domestic sale of manufactures of these metals; for there is a large and regular export. For our present purposes this export need not be considered, except in so far that we must not count it as part of the consumption of the precious metals in the countries to which it goes.

We have paid no attention so far to that important branch of industry which consists in refining gold and silver, since the product of the refining goes to establishments, either domestic or foreign, which have already been considered. Nevertheless it may be of interest to present some facts as to the refineries of Germany. These may serve, moreover, to show that our estimates of the consumption in the arts are not too high.

The larger refining establishments are the Gold and Silver Refinery at Frankfurt a. M.; The North German Refining Company, of Hamburg; and the firm of Sachs and Edinger at Berlin. In addition there are refining works at the mints at Munich and Stuttgart, while several smelting works produce refined gold and silver.

The Frankfurt concern produced in the last four years—

Years.	Gold, fine.	Silver, fine.	Years.	Gold, fine.	Silver, fine.
	<i>Kilograms.</i>	<i>Kilograms.</i>		<i>Kilograms.</i>	<i>Kilograms.</i>
1882	4, 568	181, 260	1884	5, 176	231, 918
1883	5, 658	211, 590	1885	5, 777	257, 410

Included in these totals is the quantity of gold and silver converted in this establishment into gilding fluids, oxide of silver, etc.; this quantity was approximately—

Years.	Gold.	Silver.	Years.	Gold.	Silver.
	<i>Kilograms.</i>	<i>Kilograms.</i>		<i>Kilograms.</i>	<i>Kilograms.</i>
1881	126	5,500	1884	520	2,460
1882	200	7,200	1885	370	10,000
1883	270	8,100			

The gold refined by this establishment is derived chiefly from old scraps and in very small proportion from fresh bars. A great deal of material comes from Switzerland and Italy, and returns to those countries after refinement. Of the 5,777 kilograms gold refined in 1885, about 3,500 were perhaps used in Germany, and the rest sent to Russia, Italy, and Switzerland.

Of the 257,000 kilograms silver, 90,000 may have remained at home, 60,000 kilograms were sent to Russia, Italy, and Switzerland, while the remainder was sent partly to France, but mainly to India. The other two concerns mentioned above produced annually for the years 1882–1884 about 2,400 kilograms gold, fine, 93,000 kilograms silver, fine.

The refined gold and silver which these establishments bring into trade is chiefly used at once in the arts, and its extent, therefore, would alone indicate the extraordinary amount consumed in this way, even if we had no other information. A considerable part of the fine gold and fine silver produced by them goes abroad.

The statistics of the foreign trade of Germany give the following statements as to the import and export of uncoined gold and silver, and of articles made from those metals:

Years.	Gold bars and bullion.	Silver bars and bullion.	Articles made in whole or in part of precious metal.
1883.			
Imports	<i>Marks.</i> 3,828,000	<i>Marks.</i> 5,161,000	<i>Marks.</i> 7,978,000
Exports	15,077,000	19,425,000	48,450,000
Excess of exports	11,249,000	14,264,000	40,472,000
1884.			
Imports	7,380,000	4,947,000	8,642,000
Exports	11,724,000	30,889,000	44,870,000
Excess of exports	4,344,000	25,942,000	36,228,000
1885.			
Imports	7,951,000	2,181,000	8,965,000
Exports	12,102,000	27,216,000	43,855,000
Excess of exports	4,151,000	25,085,000	34,890,000

The use of the precious metals in the arts in Austro-Hungary was stated at the International Monetary Conference of 1881 to average, for the years 1867-1880, 1,455 kilograms, gold, fine, and 25,346 kilograms silver, fine.

Precious metals were stamped officially as follows:

Years.	Gold articles.	Silver articles.	Years.	Gold articles.	Silver articles.
	<i>Kilograms.</i>	<i>Kilograms.</i>		<i>Kilograms.</i>	<i>Kilograms.</i>
1881	2,809	31,801	1884	3,404	35,612
1882	3,647	34,701	1885	3,180	81,793
1883	3,157	36,786			

The actual consumption is considerably larger, as is indicated, indeed, by the large declared export of gold and silver articles. There is also some consumption for gold and silver lace.

In the Netherlands domestic products of gold and silver were stamped as follows:

• Years.	Gold.	Silver.	Years.	Gold.	Silver.
	<i>Kilograms.</i>	<i>Kilograms.</i>		<i>Kilograms.</i>	<i>Kilograms.</i>
1881	1,280.2	9,255.8	1883	1,149.0	8,384.0
1882	1,226.1	8,896.9	1884	1,114.7	8,187.2

In Belgium the stamping of gold and silver articles has been optional since July 1, 1869. In 1868 there were stamped gold articles containing 398.04 kilograms, and silver articles containing 3,651.4 kilograms.

An estimate of the industrial consumption for the Netherlands and Belgium together of 3,200 kilograms gold and 24,000 kilograms silver would probably be too high rather than too low.

According to the statements made by delegates at the International Monetary Conference of 1881, the average annual consumption of the precious metals during the eleven years 1870-'80, in Norway and Sweden, was—

	Gold.	Silver.
	<i>Kilograms.</i>	<i>Kilograms.</i>
Norway	22	1,694
Sweden	248	2,540

In Russia there were stamped in 1884 the following quantities of domestic and foreign articles: Of gold, 187 pud 38 solotnik, etc. = 2,079 kilograms; of silver, 3,475 pud 35 solotnik, etc., = 56,935 kilograms.

In earlier publications we ventured to make a general statement, with all possible reservations as to error, of the probable consumption of the precious metals in the arts in civilized countries on the average of recent years. We again present such a statement here, having heard of no well-founded objections to it. Surprising as the enormous extent of the estimated annual consumption of gold for ornaments and other purposes in the arts may seem, any doubts as to the probable correctness of the estimate will disappear on consideration of the increasing use of

gold for ornament and for industrial purposes, with the growth of population and wealth. A similar increase is unfortunately not to be observed in the industrial use of silver:

Countries.	Gold.			Silver.		
	Gross consumption.	Deduct for old material.	Net consumption.	Gross consumption.	Deduct for old material.	Net consumption.
	<i>Kilograms.</i>	<i>Per cent.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Per cent.</i>	<i>Kilograms.</i>
United States.....	21, 700	10	19, 500	135, 000	15	115, 000
Great Britain.....	20, 000	15	17, 000	90, 000	20	72, 000
France.....	21, 000	20	16, 800	100, 000	25	75, 000
Germany.....	15, 000	20	12, 000	110, 000	25	82, 000
Switzerland.....	15, 000	30	10, 500	32, 000	25	24, 000
Netherlands and Belgium.....	3, 200	20	2, 500	30, 000	20	24, 000
Austro-Hungary.....	2, 800	15	2, 400	40, 000	20	32, 000
Italy.....	6, 000	25	4, 500	25, 000	25	19, 000
Russia.....	8, 000	20	2, 400	40, 000	20	32, 000
Other civilized countries.....	2, 300	.....	2, 000	50, 000	20	40, 000
Total.....	110, 000	.....	90, 000	652, 000	.....	515, 000

Mr. Giffen, in his essay entitled *Gold Supply: the Rate of Discount and Prices* (Essays in Finance, second series, p. 46), says:

The demand for gold for use in the arts is put by Dr. Soetbeer at nearly £10.-000,000, but which is not half that amount, as far as I can judge, if we exclude what is taken for the arts out of the coinage of different countries, and which will be counted among the coinage requirements. Let the estimate for this purpose be £5,000,000.

This passage indicates a misconception that should be removed. Doubt may exist whether our estimate of the annual net consumption of gold in the arts at 90,000 kilograms be too high or too low; but it is certain that it is immaterial for the problem of prices and of standards of value whether newly produced and uncoined gold, or gold coin melted down, is used for these purposes. The increment to the monetary supply of gold from the annual gold production is only that sum by which the product exceeds the use in the arts, the export to the East, and any loss from accident. The quantity coined, as such, is not to be considered, since a large proportion of newly-coined gold pieces (such as the Russian half imperials) are at once melted and never get into circulation. If in any year gold is produced to the amount of 400,000,000 marks, and if in the same year 320,000,000 are consumed in the arts, exported to the East, or lost by abrasion, then no more than 80,000,000 marks remain for the increase of the monetary gold supply; and it is immaterial whether 30, or 50, or 70 per cent. of the gold used in the arts comes from melted coins, old or new. We are inclined to agree that half, or perhaps more, of the gold used in the arts (after deducting the gold articles remelted) is obtained by melting coins; but this is of no importance so far as the monetary gold supply and the level of prices are concerned. We have added this note because of the great importance of the manner and extent of the use of gold in the arts.

3. THE FLOW OF GOLD FROM CIVILIZED COUNTRIES.

Even if a higher estimate were put on the industrial consumption of the precious metals and on the loss by abrasion and accident, it would still be necessary to consider another factor affecting the proportion of newly-produced gold which remains available for the monetary supply of the civilized countries.

The great diminution, during the invasions of the Germanic tribes and during the centuries following those invasions, in the supply of gold and silver gathered in the Roman empire—a diminution which certainly set in to a striking extent—presents in itself difficult problems. But apart from this, it is no easy task to explain the disappearance from circulation of a considerable part of the enormous quantities of gold and silver which reached Europe from America in the second half of the sixteenth century and in the seventeenth century. We believe that the explanation is to be found mainly in the secreting and burying of coin during the periods of war and insecurity which lasted so long in many countries, especially in Germany, France, the Netherlands, the countries on the Danube, etc. Money at that time was the most important form of movable wealth, and the endeavor of its owners was, naturally, to save it from plunder by burying it. Our public prints have frequent notices of the discovery of larger or smaller sums of money, especially of Reichsthaler, which had obviously been buried in the times of the religious wars. Many such discoveries of coin must be kept secret; while the points at which such hoards are found form an insignificant part of the total area in which they may be hid. Many millions of marks of money may have been withdrawn forever from circulation in this way.

Since the close of the seventeenth century the burying of money has practically come to an end in Europe. In the countries on the lower Danube and in Turkey it has lasted, however, to our own times, as is proved, indeed, by the continued coinage of (Austrian) ducats.

But if the disappearance of money in civilized countries by its being buried may be fairly considered to be no longer of practical importance, the regular export of the precious metals to the East, on the other hand, has become in modern times of the highest importance. The flow of the metals to the East, it is true, has always been uninterruptedly affecting the monetary condition of the West; but in the last three centuries it has become an unusually important factor.

The East Indies have been the chief absorber of the precious metals from the civilized countries, and must therefore be specially considered in our discussion of this question.

*Balance of trade of British India in the fifty years, 1835-'36 to 1884-'85.**

Fiscal years.	Imports of merchandise.	Exports of merchandise.	Excess of exports of merchandise.	Excess of imports of precious metals.	Amount of council bills sold.	Value of the rupee in pence.	Invest- ments of capital by the Govern- ment for rail- roads, etc.
	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>			<i>Rupees.</i>
1835-'36 to 1839-'40..	52,846,000	116,454,000	63,607,000	21,759,000	21,915,957	23.100	.....
1839-'41 to 1844-'45..	86,760,000	140,353,000	62,593,000	27,977,000	2,055,971	22.850	.....
1845-'46 to 1849-'50..	90,453,000	158,195,000	67,742,000	15,727,000	2,505,773	22.000	.....
1850-'51 to 1854-'55..	115,471,000	193,461,000	77,990,000	32,618,000	3,370,728	22.900	.....
1855-'56 to 1859-'60..	178,819,000	267,812,000	88,493,000	132,907,000	992,523	24.325	.....
1860-'61	234,937,000	329,706,000	94,769,000	95,606,000	797	.....	.....
1861-'62	223,204,000	363,170,000	139,966,000	142,709,000	1,193,728	23.867	.....
1862-'63	226,324,000	478,596,000	252,273,000	193,983,000	6,641,576	23.920	.....
1863-'64	271,456,000	656,254,000	384,799,000	216,950,000	8,979,521	23.907	.....
1864-'65	281,509,000	680,270,000	398,761,000	199,188,000	6,789,473	23.876	.....
1865-'66	295,902,000	654,911,000	358,919,000	243,931,000	6,968,110	23.835	.....
1866-'67	290,387,000	418,600,000	128,213,000	108,054,000	5,067,580	23.064	.....
1867-'68	357,658,000	508,741,000	151,683,000	102,034,000	4,137,285	23.190	6,025,000
1868-'69	350,901,000	530,622,000	170,720,000	137,604,000	3,705,741	23.197	13,706,000
1869-'70	329,275,000	524,714,000	195,439,000	129,124,000	6,950,122	23.267	25,996,000
1870-'71	344,691,000	553,318,000	208,627,000	82,241,000	8,443,009	22.493	11,678,000
1871-'72	320,918,000	631,858,000	310,940,000	109,977,000	10,210,339	23.126	16,285,000
1872-'73	318,746,000	552,508,000	233,761,000	32,585,000	13,939,085	22.754	21,846,000
1873-'74	338,360,000	549,960,000	211,600,000	38,785,000	13,285,678	22.251	35,533,000
1874-'75	362,221,000	563,592,000	201,371,000	65,157,000	10,841,614	22.156	42,496,000
1875-'76	388,878,000	580,915,000	192,042,000	31,005,000	12,389,613	21.625	42,706,000
1876-'77	374,408,000	610,139,000	235,733,000	74,062,000	12,693,799	20.508	38,603,000
1877-'78	414,642,000	652,223,000	237,581,000	151,445,000	10,134,455	20.791	47,911,000
1878-'79	378,008,000	609,375,000	231,369,000	30,745,000	13,948,565	19.794	43,819,000
1879-'80	411,609,000	672,124,000	260,464,000	96,202,000	15,261,810	19.961	130,932,000
1880-'81	531,168,000	745,806,000	214,638,000	75,478,000	15,239,677	19.956	92,972,000
1881-'82	491,134,000	819,685,000	328,551,000	102,290,000	18,412,329	19.895	39,520,000
1882-'83	520,957,000	834,851,000	313,894,000	124,111,000	15,120,321	19.525	46,651,000
1883-'84	552,793,000	881,761,000	328,967,000	118,687,000	17,599,805	19.536	40,201,000
1884-'85	557,031,000	832,553,000	275,522,000	119,176,000	13,758,009	19.308	157,324,000

* Fiscal years are from April 1 to March 30, but before 1867 from April 30 to May 1. Between 1835-'36 and 1855-'56 averages for five-year periods are given. The figures are taken from the official statements made by the Indian Office to Mr. Paigrove for his Memorandum in the third report of the Royal Commission on the depression of trade, 1886.

† Estimate.

PRODUCTION OF THE PRECIOUS METALS.

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Import and export of the precious metals, and other statistics for British India, in the fifty years 1835-'36 to 1884-'85.

Fiscal years.	Import of silver.	Export of silver.	Excess of imports of silver.	Excess of imports of gold.	Total coinage of silver.	Coinage of silver, deducting recoinage.	Registered debt in India and England.
	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>	
1835-'36 to 1839-'40	20,966,000	2,539,000	18,427,000	3,322,000	47,902,000	33,235,000	£30,347,177
1840-'41 to 1844-'45	31,593,000	6,877,000	24,716,000	3,261,000	46,881,000	37,616,000	35,255,247
1845-'46 to 1849-'50	18,098,000	12,763,000	5,335,000	9,795,000	33,800,000	27,072,000	43,653,890
1850-'51 to 1854-'55	31,552,060	9,706,000	21,846,000	10,772,000	44,818,000	37,972,000	48,740,806
1855-'56 to 1859-'60	108,929,000	8,204,000	100,725,000	32,182,000	97,186,000	94,908,000	65,732,248
1860-'61	64,346,000	11,066,000	53,280,000	42,526,000	52,971,000	51,917,000	94,537,605
1861-'62	97,615,000	6,751,000	90,865,000	51,844,000	74,700,000	70,704,000	98,577,970
1862-'63	136,274,000	10,772,000	125,502,000	68,482,000	93,554,000	92,515,000	96,827,787
1863-'64	140,372,000	12,404,000	127,967,000	88,983,000	115,567,000	114,797,000	90,946,635
1864-'65	114,883,000	14,095,000	100,788,000	98,400,000	109,115,000	104,859,000	90,727,082
1865-'66	201,844,000	15,157,000	186,687,000	57,245,000	146,394,000	145,071,000	90,508,133
1866-'67	80,554,000	16,924,000	63,631,000	38,423,000	61,831,000	61,189,000	93,578,890
1867-'68	69,994,000	14,055,000	55,940,000	46,095,000	43,851,000	43,135,000	95,481,275
1868-'69	99,790,000	13,780,000	86,010,000	51,594,000	42,693,000	42,070,000	96,194,642
1869-'70	82,644,000	9,441,000	74,203,000	55,920,000	75,105,000	74,736,000	101,747,898
1870-'71	26,622,000	17,203,000	9,419,000	22,821,000	17,449,000	17,182,000	104,826,385
1871-'72	80,000,000	14,677,000	65,324,000	35,653,000	17,093,000	16,904,000	106,959,466
1872-'73	19,132,000	12,191,000	7,151,000	25,434,000	40,085,000	39,809,000	105,470,985
1873-'74	41,437,000	16,479,000	24,958,000	13,826,000	24,000,000	23,700,000	107,534,967
1874-'75	60,518,000	14,096,000	46,422,000	18,735,000	49,410,000	48,969,000	118,446,992
1875-'76	34,643,000	19,090,000	15,554,000	15,451,000	25,826,000	25,502,000	122,570,014
1876-'77	99,924,000	27,935,000	71,989,000	2,073,000	62,929,000	62,711,000	127,329,159
1877-'78	157,765,000	11,002,000	146,763,000	4,681,000	162,968,000	161,805,000	134,631,533
1878-'79	55,937,000	16,230,000	39,707,000	8,962,000	72,784,000	72,108,000	138,868,943
1879-'80	96,050,000	17,353,000	78,697,000	17,505,000	103,419,000	102,570,000	151,728,065
1880-'81	53,162,060	14,236,000	38,926,000	36,552,000	44,107,000	42,497,000	157,288,878
1881-'82	64,664,000	10,873,000	53,790,000	48,446,000	29,249,000	21,863,000	156,795,109
1882-'83	83,580,000	8,778,000	74,802,000	49,309,000	73,387,000	65,085,000	159,274,460
1883-'84	74,085,000	10,624,000	64,062,000	54,625,000	41,420,000	36,634,000	161,300,221
1884-'85	91,100,000	18,644,000	72,456,000	46,719,000	60,264,000	57,741,000	*162,454,748

* Estimated.

NOTE.—In 1878-'79 the export of gold from India, by way of exception, exceeded the imports by the sum of £896,173.

In the Indian circular of J. Westwood Thompson, of January 1886, the export of precious metals to the East during the thirty-two calendar years from 1853 to 1885 is given as follows:

	Gold.	Silver.
From England by Peninsular and Oriental Steam Navigation Company steamers	£43,812,914	£209,515,366
From Mediterranean ports by Peninsular and Oriental steamers and by the Messageries Maritimes	48,167,000	68,932,856
Total	91,480,004	278,448,224

In the calendar year 1885, council bills and telegraphic transfers amounted to 14,27,60,113 rupees, yielding £11,103,931. The total of council bills from 1861-'62 to 1884-'85, was 2,85,74,40,033 rupees, yielding £252,421,911.

During the eleven years from 1874 to 1884, the Indian government spent on productive public works, mainly railways, the following sums:

Year.	Amount.	Year.	Amount.	Year.	Amount.
1874	£5,625,134	1878	£7,123,677	1882	£9,806,226
1875	6,081,551	1879	7,123,199	1883	10,312,066
1876	6,258,597	1880	7,778,425	1884	10,522,022
1877	6,574,515	1881	9,499,533		

NOTES TO THE TABLES ON THE BALANCE OF TRADE, AND THE MOVEMENT OF THE PRECIOUS METALS IN BRITISH INDIA, 1836-1885.*

The preceding tables take account of factors of essential importance for the silver question, and the present and future of the question of standards. Many of those in whose hands the present publication will come will understand without further aid the importance and connection of these long columns, but for most readers a detailed consideration may not be superfluous. What follows rests in the main on our earlier publications.

British India, inclusive of the native states, had, by the census of 1881, an area of 1,378,044 square miles. It had a population of 253,982,595, of whom 198,790,853 were directly under British rule on 868,314 square miles of territory. (Ceylon and the Straits Settlements are not included.) When we consider the economic condition and history of India, this enormous population must always be kept in mind. India is on the whole a fertile country, and produces much more than is consumed within its limits; but the domestic production of the precious metals is insignificant. As far back as our knowledge goes, the export of commodities from India has considerably exceeded the import into the country, and the consequence has been an almost continuous inflow of the precious metals. India has, therefore, in a higher degree than almost any other country a so-called favorable balance of trade. Pliny, who died 79 A. D., complains that India absorbed from the Roman empire no less than 5,000,000 sesterces per year—that is, no less than 10,800,000 marks. In a book of travels published in 1699, by a Frenchman, Bernier, who lived for some time at the court of Delhi, and made a report on the commercial relations of India to Colbert, the great French statesman, it is said: "The gold and silver of the world, after circulating for some time, finally flow to India, as into an abyss from which there is no return." Alexander von Humboldt calculated the flow of silver to India and the rest of Eastern Asia at about 25,000,000 piasters annually at the close of the eighteenth century. Humboldt's estimate seems too high, when compared to the recorded shipments by the English and Dutch East India Companies. But this is hardly the case with the calculation of Mr. Van den Berg, who concludes that for the whole of the eighteenth century the average annual export of silver from Europe to Eastern Asia was about 23,000,000 marks. We believe, however, that this last estimate is too low. It should be noted that during the seventeenth and eighteenth centuries considerable sums of gold, whose value was then considerably lower as compared to silver, were exported from Eastern Asia to Europe.

During the first half of the present century the flow of precious metals to India has gone through several phases. During the years from 1801 to 1813 the precious metals imported into Calcutta, Bombay, and Madras amounted to about 40,000,000 marks per year; and during the period immediately following the abolition of the East India Company's monopoly it rose to about 90,000,000 marks per year. Thereafter a great decrease set in for a series of years, and about 1832 the net import of the precious metals into India became for a while practically nothing. Then for the years from 1834 to 1850 it maintained itself with no great

*In the following notes the fiscal years of India are indicated by that year in which the fiscal year ends—that is to say, instead of 1835-'36 the simple figure 1836 is used. Where calendar years are in question this is expressly stated. R signifies rupees.

variations at about 50,000,000 marks yearly, at a time when the total production of silver was from 110,000,000 to 140,000,000 marks.

Since 1851 the balance of trade in India, and the export and import of commodities, have been, for longer periods, as follows:

Years.	Export of merchandise.	Imports of merchandise.	Excess of exports.
	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>
1851-'60	230,400,000	147,200,000	83,200,000
1861-'70	514,600,000	287,000,000	227,600,000
1871-'80	507,600,000	385,300,000	232,300,000
1881-'85	822,900,000	530,600,000	292,300,000

It thus appears from the official statistics that the excess of exports of merchandise from British India amounted, in the thirty-five years from 1851 to 1885, to the colossal sum of 6,893,000,000 rupees.

The export and import of commodities and the excess of exports show a considerable growth in these thirty-five years, as appears in the following statement by per cents:

Years.	Exports.	Imports.	Excess of exports.
1851-'60	100.0	100.0	100.0
1861-'70	222.3	195.0	278.3
1871-'80	259.4	248.2	279.2
1881-'85	257.2	300.5	351.3

By value, the average exports of merchandise during the years 1881-'85 exceeded the average exports during the years 1851-'60 by no less a sum than 209,100,000 rupees.

These statements refer only to the trade by sea. The statistics in regard to the overland trade of British India are exceedingly incomplete.

The following table in regard to some of the more important articles of India's foreign trade indicates which were the chief factors in this extraordinary increase of trade:

Exports from British India.

Articles.	1860-'74, average.	1885.
	<i>Rupees.</i>	<i>Rupees.</i>
Cotton	174,100,000	133,000,000
Cotton yarn	1,400,000	25,100,000
Cotton goods	12,800,000	20,400,000
Indigo	34,100,000	40,700,000
Rice	46,200,000	71,900,000
Wheat	2,700,000	63,100,000
Hides and skins	28,600,000	49,400,000
Jute, raw	32,500,000	46,600,000
Jute, manufactured	2,200,000	15,400,000
Seeds containing oils	24,900,000	107,500,000
Sugar	3,600,000	7,900,000
Tea	14,100,000	41,400,000
Total	371,700,000	622,400,000

Imports into British India.

Articles.	1860-'74, average.	1885.
	<i>Rupees.</i>	<i>Rupees.</i>
Coal	5,500,000	12,900,000
Cotton yarn	27,500,000	33,600,000
Cotton goods	147,700,000	207,100,000
Machinery	5,900,000	15,700,000
Metal manufactures	24,400,000	49,800,000
Oil	500,000	12,300,000
Silk goods	4,800,000	11,300,000
Railroad supplies	9,100,000	28,300,000
Sugar	6,000,000	21,400,000
Woolen goods	5,200,000	10,900,000

We turn now from the statistics of commodities to those of the export and import of the precious metals. In the general tables printed above we have confined ourselves, so far as gold is concerned, to the net import, that is to say, the import after deducting the export; since the export of gold from India, barring exceptional circumstances such as occurred in 1879, is unimportant. The export of gold on the average of the fifty years from 1836 to 1885 was not quite 7 per cent. of the import of gold during the same time; that is, there were only 91,900,000 rupees exported, against 1,370,800,000 rupees imported. So far as silver is concerned, there-export is more important. In the last fifty years 552,700,000 rupees were exported, as against 3,191,800,000 rupees imported. But this re-export of a considerable portion of the imported silver takes place in the main to other countries of eastern Asia, and very little of it finds its way back into international trade.

In the thirty-five years from 1851 to 1885 the import and export of the precious metals in British India showed the following annual averages in the periods mentioned:

Years.	Gold.			Silver.		
	Imports.	Exports.	Excess of imports.	Imports.	Exports.	Excess of imports.
	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>	<i>Rupees.</i>
1851-'60	22,036,000	550,000	21,477,000	70,240,000	8,955,000	61,285,000
1861-'70	61,712,000	1,781,000	59,931,000	109,432,000	12,445,000	96,987,000
1871-'80	21,069,000	6,367,000	14,722,000	67,224,000	16,626,000	50,598,000
1881-'85	47,742,000	613,000	47,129,000	73,818,000	12,513,000	60,805,000

There is no tax on the export and import of the precious metals in British India, and the trade concentrates itself in the main in a few ports; the correctness of these important statements, therefore, may be assumed.

To assure sound conclusions it is necessary to take account of the places from which India imports her precious metals, since a considerable part of the import comes from China and is derived from the production in that country, which we have not considered in our statistics of the production of the precious metals.

Imports of gold and silver into British India from the countries named.

Years.	Gold.				Silver.			
	England.	Australia.	China.	Other countries.	England.	China.	Other countries.	Total.
	<i>Rupess.</i>	<i>Rupess.</i>	<i>Rupess.</i>	<i>Rupess.</i>	<i>Rupess.</i>	<i>Rupess.</i>	<i>Rupess.</i>	<i>Rupess.</i>
1840.....	3,021,000	60,000	11,842,000	5,561,000	47,140,000	28,237,000	20,873,000	96,050,000
1841.....	10,478,000	2,912,000	15,487,000	7,844,000	28,646,000	1,606,000	22,910,000	53,162,000
1842.....	10,982,000	13,219,000	13,770,000	10,593,000	37,880,000	15,125,000	11,850,000	64,854,000
1843.....	13,932,000	14,257,000	11,679,000	11,083,000	43,905,000	12,658,000	27,017,000	83,580,000
1844.....	13,285,000	19,206,000	13,605,000	8,599,000	54,579,000	5,529,000	13,977,000	74,085,000
1845.....	14,973,000	12,797,000	9,258,000	10,764,000	66,834,000	11,265,000	13,001,000	91,100,000

The re-export of silver from British India takes place mainly to Mauritius, Ceylon, the Straits Settlements, and the Persian Gulf.

What use has been made of the enormous sums of gold and silver that remain in India?

Of the import of gold, a very small part has been coined into domestic gold coin. The total coinage for the fifty years since 1835 amounts to no more than 2,352,399 rupees; the rest of the gold, about 1,276,000,000 rupees, has been used for ornament, or has been hoarded, in the form of British and Australian sovereigns, by the richer natives and in the treasuries of Indian princes. The gold that once has flowed to India is lost, almost without exception, to trade. The natives are careful watchers of the bullion market, and have not failed to note that in recent times the value of silver at the bazars has become less as compared to gold. Ornaments and hoards of silver are therefore less highly prized then in former years. In India, as elsewhere, gold is taking the place of silver.

Of the silver imported to India the great mass has been coined into rupees. A considerable part of this is still in circulation, in the Government treasuries, or in the banks; the rest has been converted, either directly or by smelting down rupees, into articles of ornament.

As the totals show, the net import of silver into British India for the period from 1836 to 1885 has reached the enormous sum of 2,638,100,000 rupees. The coinage of silver has reached the sum of 2,992,800,000 rupees, of which 242,300,000 rupees were got by resmelting older Indian coins.

It has been supposed that the amount of silver now in circulation in India, inclusive of the sum of nearly 222,000,000 rupees in Government treasures and in banks, may be stated at about 2,000,000,000 rupees. We believe that this estimate is much too high. The many continued assurances sent to us in regard to the extraordinary extent to which silver is used for ornament and is hoarded, lead us to consider it highly improbable that no more than 24 per cent. of the imported silver has disappeared in this way. The childlike habit of hoarding and of burying coin, which resulted very naturally from insecurity of former times, maintains itself to our own day in many parts of the Indian continent, and has maintained itself obstinately in face of all the influences of civilization. It is true that the beneficent effect of British rule and the general progress of civilization have caused it to diminish in some districts; but, again, the circulation of silver coins has been pushed into channels formerly not reached by it and where there was previously no opportunity for hoarding. Wages have risen, the use of money has extended, and, since the needs of the population have not increased in proportion, more money is available for hoarding. In many parts of the

densely populated land no means exist for securely investing money, confidence is weak, and the hoarding of coin is the only safe form of saving. Moreover, an Oriental population is not easily moved from its old habits.* Considering the habit of hoarding, and the fact that the circulation of rupees is in many districts very small, some observers have assumed that the probable present monetary circulation of India is no more than half the sums that have been coined. This is no more than a guess, yet the contrary statement of a circulation of about 2,000,000 rupees is also a guess. The same difference of opinion appears when it is stated, on the one hand, that India is in a condition to absorb in time any quantity of silver not elsewhere disposable, and on the other hand, in the assertion that the demand for silver in India, other things remaining the same, can be satisfied in future by about 30,000,000 rupees per year.

The great importance of the flow of the precious metals to India induces us to add extracts from two recent essays whose author has practical acquaintance with the condition of India.

In an essay in the London Bankers' Magazine, May, 1886, it is said: "The continued fall in the rate of exchange on India has been accom-

* In answer to inquiries in regard to the use of money and of the precious metals in ordinary intercourse in India, I received in May of the present year the following communications from private friends. They are based on their own personal observation in the interior. They confirm the remarks in the text, and contain matter which does not readily find its way into books and official reports, yet contributes to the understanding of the actual state of affairs.

In a letter from the Godavari district it is said: "Barter prevails in the rural population. In the villages rice is the common medium of exchange. Even goldsmiths, carpenters, and other mechanics get their wages in rice. The only exception is in the case of the grave-digger, who gets, besides his quantum of rice, 5 dubs for every grave. In the cities and in the larger villages payments are made in coin. The ordinary rate of wages for a man is 3 annas in the city, 2 annas in the country; a woman gets half as much. Wages were formerly even lower. Ten years ago a cooly got no more than 2 annas per day. The increase in wages which has taken place, however, is offset by a rise in prices. Rice, wheat, etc., have greatly risen in price in the last twenty years, though in the last ten years they have risen by no more than one-tenth.

"Money is usually in the hands of the Brahmins and of the traders. The cooly either has no money or has only enough for paying his daily expenses, so that the few dubs that he receives are immediately paid out for his food. If he happens to receive wages enough to live on for two days, he simply stops work so long. The cooly has no thought of saving or of accumulating money. The sole possessions of the ordinary Paria are a miserable mud hut, roofed with palm leaves, a dirty wife and equally dirty children, and one or two rice-pots and a water-jug. He owns the very minimum of implements for daily use. When he is hired, tools almost invariably must be loaned him.

"Hardly any but copper coins appear in ordinary trade. Rupees and other silver coins occasionally occur, but sparingly. Even well-to-do people have comparatively few rupees. These are very largely melted and converted into articles of ornament. The burying of silver, which was formerly common, is decreasing. Occasionally melted lumps of silver, whose owner has died and taken the secret of his treasure to the grave with him, are found in the fields. The hoarding of silver, as already said, constantly becomes less common, and money is usually converted into articles of ornament.

"Gold coins are not money, and the sovereigns and the still rarer mohurs are bought and sold as bullion, and melted for conversion into articles of ornament. The extent to which this is done is incredible. At a well-ordered wedding among the higher classes the bride must contribute jewelry to the value of 1,000 rupees and the bridegroom to the value of 2,000 rupees. This is the whole of their property. Less well-to-do people, of course, have less, but the more jewelry there is, the finer is the wedding. Debts are often contracted for this purpose which remain unpaid life-long. It is not so much the jewels in the gold, as the gold itself, by which the Hindoo is attracted irresistibly. Gold chains worth 1,200 rupees are often worn. Women even of the lower classes are seen with ornaments consisting of sovereigns, or of 20 and 10 franc pieces. When I asked one of these women why she carried these gold pieces about her neck, she asked me why I bought a watch and a piano. The staple subject

panied by great changes in the trade between India and Great Britain, The export of commodities from India has risen greatly, but the export from Great Britain to India has risen no less, while at the same time a considerable fall in prices has taken place for Indian articles of export and import. The export and import trade of a country are always closely connected. In the case of India there is a complication, because the Indian Government has annually to send large sums to England. These sums are due for interest on the Indian debt and on the railroad loans guaranteed by the Government. Besides, there are considerable payments for purchases in England on Indian account. Lastly, Europeans employed in India annually remit large amounts to their families in Europe, and remittances are made for pensions, etc. All these payments are so many debts due by India. They must be paid by an export of commodities from India, and a natural consequence is that exports considerably exceed the imports.

"If we compare the average of the last five-year period, 1881-'85, with the average of the period 1886-'70, the excess of imports shows an increase of 91,320,000 rupees, while at the same time the import of gold shows about the same increase, and the net import of silver shows a de-

of conversation for the women is how much jewelry this or that woman has, while that of the men is about the amount of gold owned by this or that neighbor, and the amount of money he has loaned out. Women wear by far most of the jewelry; as a rule, silver on the ankles and arms, and gold about the head, in the ears and nose, around the neck, and on the fingers. A native trader told me that the capital which he had lying idle in the form of gold ornaments would bring him 12 rupees per month. When I proposed to him that he should put this sum into the savings-bank, he rejected the proposition with the answer that he would have no more friends, as he would no longer look 'neat and nice.' A native judge, an educated and sensible man, told me that he had given his wife ornaments worth 3,000 rupees, but that she was always begging him for more, because this or that neighbor had more of one or another sort than she, and she could not endure another woman looking 'nicer.' He had told her that she had a piano and other European luxuries; but she wanted gold. He had advised the traders and the prominent men of the place to invest their gold in good railroad securities, but he had been laughed at as much as when he had bought his piano. This same judge is now building a house in which he is using European methods as much as possible; but he was willing to put no ventilators into it, as thieves might creep in through them and steal his gold. 'You can leave everything else unprotected, he said, 'even the most valuable things are never stolen. The only thing that the Hindoos, especially the women, long for, is gold.'"

In another letter, referring mainly to the province of Behar, it is said: "The daily laborers and the mechanics in the villages get their pay mainly in kind, in rice, wheat, etc. In the cities they get money. The daily wages of a laborer in the cities are now about 3 annas. In the last ten years they have risen about half. But the prices of rice and wheat have also risen. What cost a rupee ten years ago now costs a rupee and 5 annas or a rupee and 6 annas. Savings are usually invested in silver ornaments, especially bracelets and rings about the feet, for women. Richer people buy gold ornaments. The burying of treasures, which was formerly common, takes place less and less, as the fear of robbery has diminished. In the larger cities ornaments are bought ready made; in the villages and smaller cities they are made from rupees melted down. The well-to-do hoard their savings, not only in articles of ornament, but in rupees. Rich people deposit their money in the local savings-banks or else lend it at interest. Those who are in Government service buy public securities.

"Gold coins are not in circulation, being used chiefly at weddings and other festivals as presents. The last Maharajah of Burdwan had accumulated a treasure of 20,000,000 rupees in gold coins. The English Government after his death induced his widow and mother to exchange the gold for public securities, but the natives regarded this as nothing less than an act of violence."

Private letters such as these, sent me from India by Germans, who have no interest in distorting facts one way or another, may serve to explain that large import of gold into India which astonishes so many observers and seems to be a phenomenon of no temporary duration. Mr. Claremont J. Daniel, in his volumes *Gold in the East*, (London, 1880), and *the Gold Treasure in India* (London, 1884), states his belief that the introduction of a gold or double standard in British India would not increase the scarcity of gold, but would rather diminish it, since the enormous sums now held there would then return to the channels of trade,

crease by about 33,500,000 rupees. Considering the increase in the production of silver and the fall in the price of silver, we might have expected an increase rather than a diminution in the import of silver. The balance of payments has therefore been maintained in some other way, and this has taken place by the increase in India council bills.

"The bills of exchange sold by the Indian Government in London were, on the annual average, as follows:

Years.	Average.	Years.	Average.
1866-'70	£5, 371, 371	1876-'80	£12, 886, 048
1871-'75	11, 384, 047	1881-'85	16, 026, 268

"This method of payment, the result of the increasing debt of India to England, has risen in the last twenty years by more than £10,000,000 per year. In the same period the import of the precious metals to India has declined by nearly £3,500,000.

"The rate of council bills during the years 1866-'70 averaged 23.31 pence per rupee, and the price of silver in London averaged 60.78 pence per ounce. In 1885 the averages were only 19.3 pence and 49.94 pence.

"The increasing supply of council bills has depressed the price of silver, and the fall in the price of silver has again depressed the rate of exchange.

"We have already mentioned the extraordinary increase of the council bills which replace the export of silver to India, and have mentioned the increasing debt of India to England as its cause. It is true that this cause has been, upon the whole, a most important one; but there is still another reason why it should have increased in effect in the last decade. The explanation is that in former periods the quantity of council bills remained smaller because the Indian Government was raising in England loans for Indian railways, and from the yield of these loans deducted certain sums which otherwise would have had to be paid by council bills. As loans ceased to be contracted, it became necessary to resort to a larger issue of council bills."

We quote now, with some condensation, extracts from the concluding passages of an excellent book recently published in Calcutta by Mr. Barbour, secretary of the treasury for India (*The Theory of Bimetallism and the Effects of the Partial Demonetization of Silver on England and India*):

The common opinion that India can absorb any quantity of silver, and that the absorption is only a question of the price of Indian products, is not founded. In the years from 1836 to 1855 the import of silver to India was moderate, about sufficing to meet the demand. From 1856 to 1866 India imported much more silver, partly in consequence of the heavy loans resulting from the Sepoy insurrection and from the building of railroads, partly because of the extraordinary demand for cotton during the American civil war. From 1867 to 1876 India imported comparatively little silver. From 1877 to 1885 the import rose again, chiefly in consequence of the favorable balance of trade. India needs in any event an annual import of silver of about 30,000,000 rupees; possibly twice that sum. It is not likely that this amount will be exceeded in the future, unless there be great Government loans or unusual contingencies. No doubt cheap freights to Europe and the extension of railroads and canals will stimulate exports, and especially the export of wheat; yet there is a limit to the possibility of exports from India. Moreover, the quantity of council bills is likely to increase on account of interest on the Indian debt, and a general rise of the payments due by the Indian Government in London, and the remittances of silver would be diminished by this cause.

Since the depreciation of silver no rise has taken place at Indian ports in the prices either of articles of export or import. Yet an effect of the arbitrary depression of silver on Indian prices may exist in the prevention of a fall in prices that otherwise would have taken place.

Although British India is by far the most important absorber of the precious metals, the other countries of eastern Asia must also be considered. In former years, when the export of opium from India to China had not reached so great an extent, silver was exported to China in large quantities, and there went into circulation or was hoarded. A considerable flow of the precious metals still takes place from the civilized countries to China, partly by sea and partly by way of Kiachta; for the value of the tea, silk, and other products exported far exceeds that of the European and American productions which are imported. A large part of the coin brought into China is re-exported to India in exchange for opium, cotton, etc. The rest remains in circulation, or is hoarded, within the country. The case is the same with the gold which Chinese workmen bring from California and Australia.

The statement in the *Deutsches Handelsarchiv* for July, 1886, gives the following figures of the recorded import and export of the precious metals in China:

Exports and imports of precious metals in China.

Years.	Imports.			Exports.		
	Sycee, Shanghai taels.	Mexican dollars.	Gold, Shanghai taels.	Sycee, Shanghai taels.	Mexican dollars.	Gold, Shanghai taels.
1881.....	14, 109, 488	13, 406, 037	1, 350, 392	13, 835, 636	5, 516, 570	820, 464
1882.....	23, 908, 944	18, 471, 967	1, 325, 086	17, 884, 084	12, 427, 371	881, 715
1883.....	14, 208, 193	10, 674, 167	1, 426, 178	16, 733, 855	8, 276, 033	1, 224, 629
1884.....	15, 850, 007	12, 410, 787	302, 476	14, 348, 048	4, 236, 585	869, 708
1885.....	14, 080, 668	8, 111, 205	2, 617, 426	22, 679, 887	2, 888, 527	4, 755, 051
Total.....	82, 132, 360	63, 074, 163	7, 021, 553	79, 481, 010	33, 345, 086	8, 551, 567
Average.....	16, 426, 472	12, 614, 833	1, 404, 311	15, 896, 202	6, 669, 017	1, 710, 313

Converting the Sycee silver and the Mexican dollars into kilograms fine, we get for the five years, 1881-'85, an average import of silver into China, 868,800 kilograms; export of silver from China 706,200 kilograms, or an annual excess of imports of 163,500 kilograms.* On the other hand, the exports of gold exceed the imports.

In the report accompanying these figures it is said:

The general feeling of insecurity among the well-to-do classes prevents them from investing their property in any income-yielding form. Although enormous sums are undoubtedly saved, it is impossible to give any figures as to their amount. In so-called good times a part of these hoards are turned into the banks for investment, but the least feeling of coming insecurity causes them immediately to disappear.

* *Sic* in the original.

The exports of the precious metals from the United States to China (inclusive of Hong-Kong) and to Japan, and the exports from these countries, are given as follows in the official statistics:

Fiscal years.	Exports to China.	Imports from China.	Exports to Japan.	Imports from Japan.
1871.....	\$3,571,647	\$1,950	\$1,154,168	\$89,838
1872.....	5,999,335	700	3,580,053	2,638,659
1873.....	7,154,549	181	6,890,871	1,949,580
1874.....	9,381,041	39,772	822,182	20,910
1875.....	6,603,869	6,840	.....	12,733
1876.....	7,929,589	6,908	2,070	38,123
1877.....	15,430,865	10,952	1,672,538	2,372
1878.....	16,212,575	7,569	527,057	95,078
1879.....	7,431,862	134,635	.....	49,322
1880.....	6,512,828	90,991	270,560	441,941
1881.....	3,478,602	41,179	2,468,535	904,008
1882.....	4,450,210	36,005	454,678	712,970
1883.....	7,140,480	192,801	536,916	1,061,550
1884.....	9,341,559	5,280	1,046,200	555,057
1885.....	14,573,233	1,529	1,487,846	541,868

The exports of precious metals from the United States to China and Japan consist almost exclusively of silver, whereas the imports consist mainly of gold. There is, however, an import of trade dollars, of which a considerable quantity have found their way back to the United States, where they are sold at a higher rate than their intrinsic value. The trade takes place almost exclusively by way of San Francisco. In earlier publications we estimated the annual average export of silver from San Francisco to Asia for the period 1861-'70 at 88,000 kilograms, and for the period 1871-'80 at 215,000 kilograms.

Westwood Thompson's Indian Circular states the export of the precious metals from San Francisco to China as follows:

Years.	Mexican and trade dollars.	Silver in bars.	Gold.
1884.....	\$8,931,207	\$3,986,797	\$335,114
1885.....	7,562,152	4,727,132	477,320

The export of the precious metals from Russia to China, by way of Kiachta, is given as follows in the tables separately published on this subject:

Years.	Silver.	Gold.	Years.	Silver.	Gold.
	<i>Rubles.</i>	<i>Rubles.</i>		<i>Rubles.</i>	<i>Rubles.</i>
1872.....	432,000	942,000	1878.....	2,628,579	528,572
1873.....	70,000	1,068,000	1879.....	2,323,847	366,701
1874.....	44,000	1,008,000	1880.....	1,570,874	1,344,826
1875.....	29,585	1,621,200	1881.....	.....	.....
1876.....	160,294	824,831	1882.....	3,068,822	887,113
1877.....	681,950	82,010	1883.....	1,862,271	152,403

The exported gold consists of half-imperials. In the exported silver the proportion of Russian silver coins has become small, and silver bars are chiefly used. The great differences in different years are surprising. The average annual flow of the precious metals in this channel in the period 1872-1883 amounted to about 900 kilograms gold and 21,000 kilograms silver.

The Netherlands exported to their colonies between 1842 and 1880 silver coins as follows :

Periods.	Exports.	Equivalent in fine silver.
	<i>Florins.</i>	<i>Kilograms.</i>
1842-'60.....	98,602,127.50	931,790
1861-'70.....	150,634,456.00	1,423,496
1871-'80.....	83,206,075.00	786,297
Total	332,442,658.50	3,141,583

Assuming the sums that came back to be $3\frac{1}{2}$ per cent. of the total, we get for the thirty-eight years a net export of silver to the Dutch East Indies of 3,031,600 kilograms of silver fine, making an annual average of about 80,000 kilograms. This estimate, derived from the mint at Utrecht, does not tally with the statements which Mr. Van den Berg, president of the Java bank, at Batavia, presents on the flow of coin between the Netherlands and their East Indian colonies. This gentleman gives the following estimates :

	Exports from the Netherlands to East India.	Exports from the East Indies to the Netherlands.
	<i>Florins.</i>	<i>Florins.</i>
1875.....	4,250,000	2,480,000
1876.....	3,500,000	8,339,000
1877.....	17,500,000	.....
1878.....	10,000,000	6,720,000
1879.....	6,000,000	3,050,000
1880.....	3,000,000	3,930,000
1881.....	.....	1,247,000
Total	44,250,000	25,766,000

The re-export of Dutch silver from Java, which of course does not extend to subsidiary coins, is to be explained in two ways. The establishment of the gold standard in Holland has given to silver since 1875 a nominal value exceeding its intrinsic value. The absorption of the silver imported into Dutch East India by hoarding and melting on the part of the natives has ceased. Before 1875 this absorption of silver took place to a remarkable extent; and so far as this earlier period is concerned the mint statement given above may be considered correct.

The gold and silver which is coined in Austrian mints into ducats and Maria Theresa thalers is also to be considered as lost from the monetary supply of civilized countries.

The same is true of the considerable sums of coin which the French government sends year after year to Algeria; they are spent among the natives, and in part never return to trade. The coins sent by France in recent years to Farther India must also have absorbed a great deal of silver, in regard to which, however, we have no precise information.

The wars carried on by the English during the last few years in South Africa, Egypt, and the Soudan, have caused large quantities of sovereigns to go to those countries. Such coins are likely to find their way back to civilized countries only in part and gradually.

If we now reckon together the total quantity of the precious metals which has flown from civilized countries in the five years 1881-'85 to

Asia and Africa, we may conclude that it has amounted annually to more than 30,000 kilograms gold and 1,500,000 kilograms silver. The great uncertainty of any estimate of this kind must, of course, be admitted.

We endeavored to give in the first part of the Materials a statement of the total production of the precious metals in the years from 1851 to 1885. In the preceding paragraphs we have endeavored to give an estimate of their contemporaneous consumption.

We now venture to present a general table, similar to others previously prepared by us, showing the probable monetary supply of gold in civilized countries. We do not, however, venture to present a similar table in regard to silver. If the statements of the production and the consumption of gold and silver are not exact, the same is the case, in a still higher degree, with the present statement. Yet we give it, since it affords a certain check on the approximate correctness of individual estimates, and since, upon the whole, there is a probability of its being accurate. If one or another of our estimates has been very far from the truth, this must appear in such a combination of the results. We present to the reader, who will bear in mind these introductory remarks, and will remember, moreover, what we have said as to the latent reserve of the precious metals, a summary balance sheet of the production and consumption of gold and of the monetary gold supply on hand at different periods since 1851.

Probable changes in the monetary supply of gold in civilized countries in the years 1851 to 1885.

Periods.	Production of gold.	Non-monetary consumption.				Used for money and reserves.	Gold supply in money and in reserves at the close of the period.	
		Abrasion of coins and loss by accident.	Consumption in the arts, deducting old gold remelted.	Net flow to the East.	Total non-monetary consumption.			
	Kilograms.	R'g'ns.	Kilog'ns.	Kilog'ns.	Kilog'ns.	Kilograms.	Kilograms.	Marks.
1850.....							1,200,000	3,348,000,000
1851-'60...	2,006,000	5,000	280,000	100,000	385,000	1,621,000	2,821,000	7,871,000,000
1861-'70...	1,900,000	7,000	570,000	300,000	877,000	1,023,000	3,844,000	10,725,000,000
1871-'80...	1,732,000	8,000	840,000	110,000	958,000	774,000	4,618,000	12,884,000,000
1881-'85..	748,000	4,000	420,000	150,000	574,000	172,000	4,790,000	13,384,000,000

PART IV.

IMPORTS AND EXPORTS OF THE PRECIOUS METALS.

IMPORTS AND EXPORTS OF THE PRECIOUS METALS.

The statistics of most countries give much attention to the imports and exports of the precious metals, coined and uncoined, and generally give detailed statements of their inflow and outflow. This may be ascribed in part to a persistence of the ideas of the mercantile system, by which the net import of the precious metals was supposed to indicate an obvious increase of national wealth. But the statistics are kept, also, because the movement of the precious metals, when combined with other data, is supposed to give important information for many practical questions. The various periodicals which give regular information on trade and finance publish as quickly as possible, at the close of each month, the official statements of the imports and exports of gold and silver in Great Britain, France, the United States, etc., giving them in more or less detail and accompanying them with more or less comment. It is supposed that these statements give significant data, both for the time being and for longer periods, in regard to the general state of trade. Doubts, it is true, have been expressed occasionally by competent persons as to the value of such conclusions; and a thorough reform in the statistics of the international movement of the precious metals has been declared necessary. We will cite a few recent utterances. Mr. J. B. Martin, a London banker, said on the 15th of April, of this year, at a meeting of the well-known institute of bankers, that he had had the curiosity to count the 20-franc pieces which his firm had received during a recent influx of French gold into England. He found that the amount was about 3,300,000 francs; whereas the declared value as given by the Board of Trade was only 600,000 francs. The Board of Trade had stated only one-fifth of the actual import. If many cases of this kind occur, the official statistics of the imports and exports of the precious metals must be considered quite untrustworthy. Professor Carlo F. Ferraris, in a report to the council for statistics at Rome, has shown that the customs statistics of the movement of the precious metals to and from Italy are very incomplete. For instance, the official statement gave 31,010,225 lire as the export of gold and silver in the year 1884, whereas a careful investigation made elsewhere showed the export to be 46,898,962 lire.

The interest generally felt in the regular official statements of the international movement of the precious metals induced us to undertake for this publication an examination of the trustworthiness of these statements, the more so since a sufficient means of checking them was at hand. If in two countries, E. and F., the export and import of the precious metals from the one to the other is given correctly, then, obviously, the export from E. to F. must equal the import from F. to E. If the statistics of both countries agree, we may conclude that their statements are correct, since it is practically impossible that for longer

periods arbitrary or incomplete statements should happen to agree. On the other hand, if considerable discrepancies appear, we must conclude that the statistics of one of the countries are incomplete and untrustworthy, or, indeed, that this is the case with both. It need not be said that we are not concerned here with occasional or slight discrepancies.

Let us consider first the trade between Great Britain and France. In the official statistics, both of England and of France, calendar years are used, and with the present means of communication between the two countries, the difference in time between export and import can cause no great discrepancy. We must conclude, therefore, that if the statistical returns are correct on both sides, they should agree substantially. The following tables, which reproduce the official figures for the period from 1871 to 1884, show that a substantial agreement by no means exists, and that this is the case not only with the general trade, but also with the special trade. Converting the figures for both countries into marks, and considering the "general" trade of France (that is, export and import, inclusive of transit trade) we get the following results:

Years.	Gold.				Silver.			
	Imports into England from France.	Exports from France to England.	Exports from England to France.	Imports to France from England.	Imports into England from France.	Exports from France to England.	Imports to France from England.	Exports from England to France.
	Marks.	Marks.	Marks.	Marks.	Marks.	Marks.	Marks.	Marks.
1871-'75.....	40,400,000	44,800,000	55,700,000	72,600,000	23,700,000	21,200,000	37,800,000	47,000,000
1876-'80.....	52,900,000	43,000,000	64,900,000	75,800,000	36,100,000	36,400,000	22,700,000	28,700,000
1881-'84.....	36,000,000	34,500,000	23,700,000	30,700,000	39,500,000	39,400,000	9,400,000	17,300,000

*Movement of the precious metals between England and France, 1871-'84.**

a. IMPORTS TO ENGLAND AND EXPORTS FROM FRANCE.

Years.	Gold.		Silver.		Gold and silver.		Average rate of discount of Bank of England.
	Imports to England from France (British statistics).	Exports from France to England (French statistics).	Imports to England from France (British statistics).	Exports from France to England (French statistics).	Imports to England from France (British statistics).	Exports from France to England (French statistics).	
		France.		France.		France.	Per cent.
1871.....	£3,708,203	120,750,220	£1,091,011	14,020,302	£4,799,214	134,779,522	2.87
1872.....	2,116,557	63,360,020	1,228,487	17,775,469	3,040,044	81,135,489	4.12
1873.....	1,508,985	27,116,130	1,342,491	3,807,490	2,851,478	30,923,620	4.75
1874.....	740,395	8,942,580	1,172,272	5,090,258	1,912,667	14,572,838	8.75
1875.....	2,022,064	29,892,700	1,392,305	4,436,236	3,415,269	34,329,036	3.25
1876.....	1,427,024	12,774,092	1,340,828	14,571,260	2,767,852	27,346,252	2.62
1877.....	1,872,800	2,824,384	1,321,900	8,315,820	2,394,100	11,140,204	2.87
1878.....	5,008,078	61,302,688	1,740,657	19,388,440	7,648,735	80,691,137	3.75
1879.....	2,905,323	62,060,480	2,346,584	31,746,735	5,251,907	94,710,215	2.37
1880.....	2,118,030	37,522,168	2,088,635	12,950,335	4,186,671	50,481,503	2.75
1881.....	2,129,539	25,564,800	1,458,961	7,761,780	3,588,500	43,328,580	3.50
1882.....	1,832,361	19,824,552	2,443,208	21,080,888	4,475,560	49,905,440	4.12
1883.....	1,294,688	35,832,584	2,089,628	9,524,458	3,364,316	45,357,042	3.56
1884.....	1,951,115	23,504,480	1,727,708	12,784,719	3,678,853	36,349,199	2.95
Yearly average for—							
1871-'75.....	2,019,421	50,014,148	1,184,313	9,103,951	3,203,784	59,208,099	3.75
1876-'80.....	2,046,252	35,478,742	1,803,601	17,380,320	4,449,853	52,875,062	2.87
1881-'84.....	1,801,933	28,696,004	1,974,876	12,787,961	3,776,809	41,484,565	3.53

* The figures in these tables (a and b) refer to the "special" trade (which excludes transit trade) for France. The preceding table gave figures for the "general" trade. There are considerable discrepancies in both tables, but they are more striking in the "special" trade. All subsequent tables for France give the figures of "special" trade.

Movement of the precious metals between England and France, 1871-'84—Continued.

b. EXPORTS FROM ENGLAND AND IMPORTS TO FRANCE.

Years.	Gold.		Silver.		Gold and silver.		Exchange on London in Paris, 3 months' date, per 1 £.
	Exports from England to France (British statistics).	Imports to France from England (French statistics).	Exports from England to France (British statistics).	Imports to France from England (French statistics).	Exports from England to France (British statistics).	Imports to France from England (French statistics).	
		<i>France.</i>		<i>France.</i>		<i>France.</i>	<i>France.</i>
1871	£1,569,171	31,925,700	£1,239,904	37,755,263	£2,809,075	69,680,468	25.85
1872	1,040,448	40,022,000	871,177	25,004,586	1,911,625	65,026,586	25.86
1873	633,316	15,431,100	3,564,052	120,098,500	4,196,368	135,529,000	25.82
1874	5,433,712	193,005,700	1,321,658	38,895,800	6,755,370	231,901,500	25.81
1875	5,251,444	162,694,000	2,449,780	64,840,945	7,701,174	227,534,945	25.48
1876	4,188,566	109,406,040	1,832,919	33,705,800	6,021,485	143,112,440	25.38
1877	6,147,504	168,408,240	767,574	14,973,400	6,915,078	183,381,640	25.31
1878	4,590,429	144,055,040	2,190,877	51,196,080	6,790,306	195,251,720	25.38
1879	693,710	17,181,528	722,683	23,231,760	1,418,393	40,418,288	25.42
1880	602,218	15,413,032	173,444	6,063,295	775,662	21,476,327	25.47
1881	1,088,945	26,956,144	704,089	21,794,910	1,793,034	58,751,063	25.47
1882	3,289,947	77,219,120	350,213	13,234,570	3,640,160	90,453,690	25.50
1883	101,234	1,800,480	188,915	8,454,985	290,149	10,315,465	25.55
1884	263,334	10,637,200	633,146	10,358,090	890,480	20,995,290	25.46
Yearly average for—							
1871-'75.....	2,785,418	88,615,600	1,886,304	57,819,019	4,674,722	145,934,619	25.77
1876-'80.....	3,246,685	90,892,896	1,137,500	25,834,187	4,384,185	116,727,083	25.39
1881-'84.....	1,185,865	31,668,286	469,091	13,460,641	1,654,956	45,128,877	25.50

There are many surprising and noteworthy points in these tables. Adding up the statements of the shipments of the precious metals in these tables between England and France, and converting pounds and francs into marks, we get the following results:

	Gold.	Silver.	Gold and silver.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
Imports to England from France, by British statistics.....	610,722,000	456,782,000	1,067,504,000
Exports to England from France, by French statistics	433,801,000	147,283,000	581,084,000
Excess of British over French figures	176,921,000	309,499,000	486,420,000
Imports to France from England, by French statistics.....	819,372,000	375,687,000	1,195,059,000
Exports to France from England, by British statistics	698,080,000	340,298,000	1,038,288,000
Excess of French over British figures.....	121,292,000	35,479,000	156,771,000

The export of the precious metals from England into France, that is, the imports into France from England, for the fourteen years 1871-'84, are made by the French statistics nearly 157,000,000 marks greater than by the English statistics, a yearly discrepancy of about 20,000,000 marks. On the other hand, the imports into England from France, that is, the exports from France to England, are made by the French statistics to appear less by 486,000,000 marks than by the English statistics, a yearly discrepancy of about 35,000,000 marks.

This great discrepancy, remaining as it does even when a number of years are considered, renders it almost superfluous to point out the discrepancies in individual years. A few examples will suffice: In 1878 the English statistics give the import of gold into England from France at £5,908,078 (118,200,000 marks). But in the French statistics the corresponding export of gold from France to England is said to be 61,302,688

francs (49,000,000 marks). According to the French statistics there were imported into France from England, in 1883, 120,098,500 francs of silver (96,000,000 marks), while the British statistics for the same year stated the export of silver from England to France to be £3,564,052 (71,300,000 marks). Such great differences prove beyond doubt that there are mistakes in the statistical publications of one or both of the two countries. It is immaterial that for some years, as a glance at the tables will show, the figures tally more or less closely. This must be ascribed to accident, in face of the enormous discrepancies in other years. Moreover, there seems to be no general tendency in the variations, from which one could reach any conclusions as to their causes.

Let us turn, now, to a comparison of the movement of the precious metals between England and the United States, following again the official statistics of both countries. Here we encounter two difficulties. In the first place, we find that in the American tables at our disposal, for some years gold and silver are not given separately, but both metals are lumped together. In the next place, the American reports refer not to calendar years, but to fiscal years ending June 30. Comparisons can therefore be readily made only for the averages of several successive years, and even then have only an approximate value.

Movement of the precious metals between England and the United States, 1871-'85.

Years.	Export of gold and silver from England to United States.		Import of gold and silver to United States from England.		Import of gold and silver to England from United States.		Export of gold and silver from United States to England.	
		Marks.		Marks.		Marks.		Marks.
1871.....	£114,297	2,300,000	\$111,996	500,000	£12,181,473	243,000,000	\$85,003,713	357,000,000
1872.....			553,633	2,300,000	12,861,978	257,200,000	56,189,206	236,000,000
1873.....	2,418,817	48,400,000	498,570	2,100,000	9,166,295	183,300,000	58,351,025	245,100,000
1874.....	34,345	700,000	13,552,517	56,900,000	7,985,362	159,700,000	35,794,568	150,200,000
1875.....	665,939	13,300,000	1,749,883	7,300,000	11,438,891	228,200,000	54,634,540	229,500,000
1876.....	3,909,727	78,100,000	1,479,683	6,200,000	7,008,039	140,200,000	32,848,274	138,000,000
1877.....	1,465,520	29,300,000	21,404,002	89,900,000	4,677,839	93,600,000	29,507,937	123,900,000
1878.....	1,911,570	38,200,000	12,552,008	52,700,000	2,483,512	49,700,000	11,580,656	48,600,000
1879.....	7,563,398	151,300,000	3,432,954	14,400,000	2,983,979	59,700,000	14,185,207	59,600,000
1880.....	5,545,407	110,900,000	36,555,634	155,200,000	1,253,932	25,100,000	4,746,007	19,900,000
1881.....	7,418,096	149,400,000	43,344,891	182,000,000	2,621,524	52,400,000	10,125,395	42,500,000
1882.....	121,622	2,400,000	13,330,810	56,000,000	8,022,249	160,400,000	36,129,679	151,700,000
1883.....	986,165	19,700,000	2,008,633	8,400,000	2,813,320	56,300,000	13,967,417	58,700,000
1884.....	2,192,135	43,800,000	3,124,363	13,100,000	7,701,410	154,000,000	37,884,698	159,100,000
1885.....	305,343	6,100,000	6,654,076	28,000,000	3,650,552	73,200,000	14,964,804	62,900,000
Yearly average for—								
1871-'75..	808,350	16,200,000	3,293,320	13,800,000	10,726,800	214,500,000	57,994,610	243,600,000
1876-'80..	4,077,724	81,600,000	15,164,856	63,700,000	3,681,640	73,600,000	18,673,616	78,000,000
1881-'85..	2,204,672	44,100,000	13,692,553	57,500,000	4,963,611	99,300,000	22,614,399	95,000,000

In this table, as already remarked, individual years can not be compared with each other, since the American statistics are arranged for fiscal years from July 1 to June 30. Even in comparing the averages of five-year or three-year periods, the effect of this difference must be taken into account.

Taking now the fifteen years from 1871 to 1885 (or 1870-'71 to 1884-'85) we find that the British statistics state the total value of the export of the precious metals from England to the United States to be £34,645,000 (693,000,000 marks). The American statistics, however, state the import of the precious metals from England to the United States to be \$160,754,000 (675,000,000 marks). The export of the precious metals from the United States to England, that is to say, the import of the precious metals into England from the United States, is stated in the English statistics to be £96,860,000 (1,937,000,000 marks), and in the

American statistics it is stated to be \$495,913,000 (2,083,000,000 marks). This nearly close agreement, both for export and for import, in the two largest trading countries of the world, is certainly strong evidence of the approximate accuracy and practical trustworthiness of the figures.

An agreement of this kind can not be found on comparing the French and American statistics of the movement of the precious metals between France and the United States—a movement which does not begin to attain dimensions as large as those of the trade between the United States and England.

We are unable to give similar comparative statements in regard to the imports and exports of the precious metals to and from Germany, since Hamburg and Bremen are outside the customs lines and have separate statistics.

Movement of the precious metals between England and Hamburg, direct by sea.

Period.	Gold and silver, Hamburg statistics.		Exports from England to Germany, British statistics.		Imports to England from Germany, British statistics.	
	Imports to Hamburg from England.	Exports from Hamburg to England.	Gold.	Silver.	Gold.	Silver.
Average of the years—	Marks.	Marks.				
1872-75	131,539,075	32,488,827	25,488,056	£436,201	£266,621	£1,285,201
1876-80	95,019,388	108,658,000	3,620,223	782,874	496,106	4,860,509
1881	82,861,430	12,598,000	610,919	768,361	442,866	222,720
1882	17,699,980	12,477,000	599,802	149,776	53,035	558,196
1883	7,654,720	7,883,000	169,018	238,800	157,496	289,663
1884	7,073,160	10,083,000	288,296	14,524	71,619	362,764
1885	78,089,850	13,176,000	3,159,932	89,453	217,696	417,320

For the whole period from 1872 to 1885 the totals for gold and silver together are, in German money :

	Marks.
Imports to England from Germany (British statistics)	715,700,000
Exports from Hamburg to England (Hamburg statistics)	729,800,000
Exports from England to Germany (British statistics)	1,036,600,000
Imports to Hamburg from England (Hamburg statistics)	1,144,600,000

Great Britain, the United States, France, and Germany, are of such preponderating importance in international trade that in a compendious publication like the present it is needless to extend this investigation to other countries.

TOTAL EXPORTS AND IMPORTS OF THE PRECIOUS METALS IN DIFFERENT COUNTRIES.

In order to complete those statistics of the international movement of the precious metals, whose trustworthiness we discussed in the preceding paragraphs, we must present general statements of the exports and imports of the precious metals in the leading countries. It is true that even for those countries whose official statistics give fairly correct figures in regard to international trade, the returns indicate only with approximate truth the actual movement of the precious metals. But, on the other hand, the same method is used in these countries year after year, and we get, therefore, a clue as to the general tendency from one year to another of each country's trade in the precious metals. The use of the precious metals in the arts, which was discussed in Part III, necessarily causes the imports of the precious metals to exceed the exports in those countries which do not produce gold or silver. Moreover, a

considerable inflow and outflow of the precious metals takes place in all countries through travelers and emigrants, while undeclared remittances take place, not embraced in the official statistics and very difficult to estimate. We now present the tables, so far as material is at hand, for longer periods. For the years previous to 1871 we give averages of several years, lest too much space should be occupied by this part of the compilation.

Imports and exports of precious metals in Great Britain.

Years.	Gold.				Silver.			
	Imports.	Exports.	Excess of imports.	Excess of exports.	Imports.	Exports.	Excess of imports.	Excess of exports.
1858-'60*	£10,225,169	£15,429,919	£3,795,250	.....	£10,622,011	£11,520,897	.....	£898,886
1861-'70*	17,162,034	11,615,330	5,546,704	.....	9,092,190	9,023,367	£68,823	.....
1871	21,618,924	20,698,275	920,649	.....	16,521,903	13,062,396	3,459,507	.....
1872	18,469,442	19,748,916	.....	£1,279,474	11,138,570	10,586,945	551,625	.....
1873	20,611,165	19,071,220	1,539,945	.....	12,988,066	9,828,065	3,160,001	.....
1874	18,081,019	10,641,636	7,439,383	.....	12,298,169	12,211,967	86,202	.....
1875	29,140,834	18,648,296	4,492,538	.....	10,123,955	8,979,746	1,144,209	.....
1876	23,475,975	16,515,748	6,960,227	.....	13,578,269	12,948,334	629,935	.....
1877	15,441,985	20,361,985	.....	4,919,401	21,710,814	15,436,733	2,274,081	.....
1878	20,871,410	14,968,507	5,902,903	.....	11,551,545	11,718,039	.....	166,494
1879	13,368,675	17,578,818	.....	4,210,143	10,786,863	11,006,094	.....	219,231
1880	9,455,861	11,828,822	.....	2,373,961	6,799,022	7,060,681	.....	261,659
1871-'80*	18,453,429	17,096,162	1,447,267	.....	12,749,718	11,683,899	1,065,819	.....
1881	9,963,006	15,498,837	.....	5,535,831	6,961,462	7,003,982	.....	102,580
1882	14,376,559	12,023,804	2,352,755	.....	9,242,925	8,965,454	277,471	.....
1883	7,755,800	7,091,365	664,435	.....	9,468,092	9,322,846	145,246	.....
1884	10,744,408	12,012,839	.....	1,268,431	9,633,495	9,986,383	.....	352,888
1885	13,376,561	11,930,818	1,445,743	.....	9,433,603	9,852,287	.....	418,682

*Average of years.

The total recorded movement of the precious metals in the years 1871-'85 was:

	Marks.
Imports of gold.....	£240,750,624 (4,815,000,000)
Imports of silver.....	172,176,505 (3,443,500,000)
Exports of gold.....	228,619,287 (4,572,400,000)
Exports of silver.....	161,969,942 (3,239,400,000)

The average annual excess of imports of gold was, 1871-'85, £808,756 (16,200,000 marks); of silver, was £680,444 13,600,000 marks. The average annual excess of imports of gold in the period 1858-'70 had been £5,142,523 (102,900,000 marks); of silver, had been £154,495 (3,100,000 marks). The small net import of silver is explained by the considerable domestic production of silver from lead ores and from imported ores.

The importations of gold and silver to England came from the following countries:

Periods.	Gold from—			Silver from—		
	Australasia.	United States	Other countries.	Mexico, South America (excluding Brazil and West Indies.)	Germany.	Other countries.
1861-'70	£60,741,335	£58,312,508	£52,566,503	£48,098,580	£4,798,507	£37,424,811
1871-'75	35,688,312	30,720,580	35,512,492	16,398,265	6,325,189	40,847,209
1876-'80	24,989,712	7,743,571	50,779,623	15,915,603	24,802,547	24,208,363
1881	4,470,186	28,191	5,469,629	1,965,615	222,720	4,713,067
1882	2,996,549	6,099,788	5,280,227	3,308,682	558,198	5,376,045
1883	2,256,128	9,777	5,489,895	3,787,881	289,663	5,390,454
1884	709,388	5,072,094	4,962,926	4,897,298	362,764	4,873,433
1885	3,737,424	909,044	8,730,093	3,688,644	417,320	5,827,741

In regard to the exports of precious metals from England to British India, see the tables given above (pp. 80, 81, 85).

Imports and exports of the precious metals in France.

Years.	Gold.				Silver.			
	Imports.	Exports.	Excess of imports.	Excess of exports.	Imports.	Exports.	Excess of imports.	Excess of exports.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
1851-'60*	413,994,000	95,559,000	318,435,000	.....	140,174,000	279,139,000	.....	138,965,000
1861-'70*	456,431,000	265,417,000	191,014,000	.....	196,492,000	166,027,000	30,465,000	.....
1871.....	143,862,000	357,676,000	.....	213,814,600	157,191,000	141,674,000	15,517,000	.....
1872.....	141,861,000	194,754,000	.....	52,893,000	240,874,000	138,624,000	102,250,000	.....
1873.....	175,594,000	284,233,000	.....	108,639,000	389,094,000	207,536,000	181,498,000	.....
1874.....	517,045,000	85,795,000	431,250,000	.....	434,415,000	73,481,000	360,934,000	.....
1875.....	608,014,000	137,693,000	470,321,000	.....	266,782,000	81,440,000	185,342,000	.....
1876.....	598,307,000	91,655,000	506,652,000	.....	205,191,000	64,775,000	140,416,000	.....
1877.....	534,007,000	98,961,000	435,046,000	.....	148,156,000	42,196,000	105,960,000	.....
1878.....	364,376,000	127,972,000	236,404,000	.....	179,044,000	69,210,000	118,834,000	.....
1879.....	194,009,000	361,527,000	.....	167,518,000	137,839,000	62,176,000	75,663,000	.....
1880.....	194,846,000	407,968,000	.....	213,122,000	100,969,000	62,181,000	38,788,000	.....
1871-'80*	347,261,000	215,123,000	132,138,000	.....	225,949,000	93,429,000	132,520,000	.....
1881.....	233,470,000	223,080,000	10,390,000	.....	130,115,000	79,022,000	51,093,000	.....
1882.....	173,489,000	202,673,000	.....	29,184,000	128,047,000	157,244,000	.....	29,197,000
1883.....	61,570,000	134,864,000	.....	70,294,000	81,440,000	95,944,000	.....	14,504,000
1884.....	127,451,000	81,901,000	45,550,000	.....	101,040,000	46,314,000	54,726,000	.....

*Average of years.

The total movement of the precious metals in France in 1871-'84 was:

	<i>Francs.</i>	<i>Marks.</i>
Imports of gold	4,071,561,000	(3,257,300,000)
Imports of silver	2,700,137,000	(2,160,100,000)
Exports of gold	2,793,752,000	(2,235,000,000)
Exports of silver	1,312,817,000	(1,050,300,000)

The average annual excess of imports of gold in 1871-'84 was therefore 91,274,214 francs (73,000,000 marks); of silver, was 99,094,286 francs (79,300,000 marks); as compared with an average annual excess of imports of gold in 1851-'70, of 254,724,600 francs (203,800,000 marks); and of silver of 54,250,250 francs (43,400,000 marks).

Imports and exports of the precious metals in Italy, 1862-'77 (according to the customs records).

Years.	Gold and silver.			
	Imports.	Exports.	Excess of imports.	Excess of exports.
	<i>Lira.</i>	<i>Lira.</i>	<i>Lira.</i>	<i>Lira.</i>
1862.....	154,702	1,048,970	.....	892,268
1863.....	309,593	402,416	.....	192,265
1864.....	154,430	189,762	.....	35,332
1865.....	84,465	743,440	.....	708,975
1866.....	1,364,170	4,691,000	.....	3,326,830
1867.....	1,481,877	7,753,740	.....	6,271,863
1868.....	1,457,665	1,473,710	.....	16,045
1869.....	1,512,700	157,040	1,355,660	.....
1870.....	1,350,610	974,550	376,060	.....
1871.....	2,242,415	10,870,041	.....	8,627,626
1872.....	4,101,706	4,938,420	.....	836,714
1873.....	25,482,131	1,765,770	23,716,361	.....
1874.....	9,347,410	7,269,926	2,077,484	.....
1875.....	8,389,584	11,891,681	.....	3,002,097
1876.....	20,142,615	8,356,398	11,786,117	.....
1877.....	14,722,378	19,221,108	.....	4,498,730

Imports and exports of the precious metals in Italy, 1878-'86 (according to the customs records).

Years.	Gold.				Silver.			
	Imports.	Exports.	Excess of imports.	Excess of exports.	Imports.	Exports.	Excess of imports.	Excess of exports.
	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>
1878.....	7,864,120	20,443,940	.....	12,579,820	3,823,510	26,258,870	.....	22,435,360
1879.....	9,455,160	33,218,240	.....	23,763,080	5,167,760	1,943,110	3,224,650	.....
1880.....	15,435,560	15,771,500	.....	435,940	24,035,945	12,943,390	11,092,555	.....
1881.....	74,361,300	20,503,100	53,858,200	.....	18,937,770	7,472,310	11,465,460	.....
1882.....	63,959,900	1,155,100	62,804,800	.....	55,456,250	5,104,430	50,351,820	.....
1883.....	42,075,000	8,373,700	33,701,300	.....	52,008,025	9,945,030	42,062,995	.....
1884.....	27,428,800	11,768,100	8,660,700	.....	5,656,600	19,242,125	.....	13,585,525
1885.....	11,698,700	101,337,800	.....	89,639,100	105,772	105,87,164,980	18,607,125	.....
1886 (5 mos.).....	4,037,100	3,528,100	509,000	.....	22,800,780	20,090,540	2,710,240	.....

It has already been mentioned that Professor Ferraris has called attention to the errors of the customs statistics on the exports and imports of the precious metals in Italy, and has made an endeavor to secure statistics from other sources which certainly come closer to the facts. These latter are based upon statements of the gold and silver shipments of the railroads and steam-ship companies through whose hands remittances pass.

The result of his investigations for the years 1883, 1884, 1885, and the first five months of 1886, was as follows:

	1883.	1884.		1885.	1886. (First 5 mos.)
	<i>Lire.</i>	<i>Lire.</i>		<i>Lire.</i>	<i>Lire.</i>
Imports of gold.....	40,038,683	19,606,846	Imports of gold.....	13,936,016	9,708,301
Exports of gold.....	17,561,352	19,460,239	Exports of gold.....	129,315,172	8,268,511
Excess of imports.....	22,477,331	146,607	Excess of imports.....	.....	1,439,790
Excess of exports.....	.....	.....	Excess of exports.....	115,379,156	.....
Imports of silver.....	62,933,530	9,272,853	Imports of silver.....	121,893,768	16,467,698
Exports of silver.....	8,772,204	27,438,723	Exports of silver.....	130,315,280	28,017,618
Excess of imports.....	54,161,326	.....	Excess of imports.....	.....	.....
Excess of exports.....	.....	18,166,870	Excess of exports.....	8,421,512	11,549,920

The customs statistics, on the other hand, indicated for 1883 an excess of gold imports of 33,701,300 lire, and of silver imports of 42,062,095 lire; for 1884 an excess of gold imports of 8,660,700 lire, and an excess of silver exports of 13,585,525 lire; for 1885 an excess of gold exports of 89,639,100 lire, and an excess of silver imports of 18,607,125 lire. For the first five months of 1886 they indicated an excess of gold imports of 509,000 lire, and of silver imports of 2,710,240 lire.

Imports and exports of the precious metals in the United States, 1850-'51—1884-'85.

Average of the fiscal years.	Gold and silver.		
	Imports.	Exports.	Excess of exports.
1851-'55.....	\$3,151,817	\$39,432,523	\$34,280,705
1856-'60.....	10,385,770	50,589,841	49,204,071
1861-'65.....	24,112,923	43,611,777	19,498,854

Imports and exports of the precious metals in the United States, &c.—Continued.

Fiscal years.	Gold.				Silver.		
	Imports.	Exports.	Excess of imports.	Excess of exports.	Imports.	Exports.	Excess of exports.
1871.....	\$6,883,561	\$66,686,208	.....	\$59,802,647	\$14,384,463	\$31,753,780	\$17,369,317
1872.....	8,717,458	49,548,760	.....	40,831,302	5,026,231	30,828,774	25,802,543
1873.....	8,682,447	44,856,715	.....	36,174,268	12,796,490	39,761,859	26,965,369
1874.....	19,563,137	34,042,429	.....	14,539,283	8,951,769	32,587,985	23,636,216
1875.....	13,686,793	66,960,977	.....	53,284,184	7,203,924	25,151,165	17,947,241
1876.....	7,992,709	31,177,050	.....	23,184,341	7,943,972	25,329,252	17,385,280
1877.....	26,246,234	28,590,374	.....	344,140	14,528,180	29,571,863	15,043,683
1878.....	13,330,215	9,204,455	\$4,125,760	.....	16,491,699	24,535,670	8,044,571
1879.....	5,624,948	4,587,614	1,037,334	.....	14,671,652	20,409,827	5,738,775
1880.....	80,758,396	3,639,025	77,119,371	.....	12,275,914	13,503,894	1,227,980
1881.....	100,031,259	2,565,132	97,466,127	.....	10,544,238	16,841,715	6,297,477
1882.....	34,377,054	32,587,880	1,789,174	.....	8,095,336	16,829,589	8,734,253
1883.....	17,734,149	11,600,888	6,133,261	.....	10,755,242	20,219,445	9,464,203
1884.....	22,831,317	41,081,957	.....	18,250,640	14,594,945	26,051,826	11,456,881
1885.....	26,691,696	8,477,892	18,213,804	.....	16,550,627	33,753,633	17,203,006
Average of.							
1864-'70.....	11,117,584	58,757,487	.....	47,639,903	5,469,798	16,818,279	11,348,481
1871-'75.....	11,496,679	52,423,016	.....	40,926,337	9,673,375	31,915,112	22,241,737
1876-'80.....	26,790,500	15,039,703	11,750,797	.....	13,182,043	22,670,101	9,488,058
1881-'85.....	40,333,095	19,262,750	21,070,345	.....	12,108,078	22,739,144	10,631,066

In the official statistics of the United States separate statements or the export of domestic gold and silver were not made before the year 1864. We have, therefore, taken the two metals together up to that year. The distinction between the export of precious metals of domestic and of foreign production is of no importance for our purposes. It is obviously of no consequence for the monetary conditions of a country whether the gold and silver exported from it has originally been produced there or elsewhere. Moreover, the authorities in the United States themselves doubt whether the distinction, as made in their statistics, rests on a better foundation than uncertain surmise.

Taking then the recorded import and export of the precious metals in the whole period from 1850-'51 to 1884-'85, we find—

Imports of gold and silver to the United States.....	\$834,057,000
Exports of gold and silver from the United States.....	1,975,227,000

Excess of exports..... 1,141,170,000

The production of silver in the United States did not begin to attain a considerable development till the close of the decade 1860-'70, and up to that time we may assume that the precious metals produced in the United States were almost exclusively gold. Assuming this, we are able to state approximately the exports and imports of gold and silver in the United States for different periods, as follows. Our calculations are made in German gold:

Periods.	Gold.		Silver.		Gold and silver.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
1851-'55.....	58,600,000	54,400,000	49,600,000	773,700,000	108,200,000	828,100,000
1856-'60.....	100,100,000	78,600,000	118,000,000	1,172,800,000	218,100,000	1,251,400,000
1861-'65.....	333,500,000	858,000,000	66,600,000	418,300,000	400,100,000	1,276,300,000
1866-'70.....	252,600,000	1,059,500,000	138,800,000	435,700,000	391,400,000	1,495,200,000
1871-'75.....	241,400,000	1,100,800,000	203,100,000	670,200,000	444,500,000	1,771,000,000
1876-'80.....	562,600,000	315,800,000	276,800,000	476,100,000	839,400,000	791,900,000
1881-'85.....	847,000,000	404,500,000	254,200,000	477,500,000	1,101,200,000	882,000,000
Total.....	2,359,800,000	3,871,600,000	1,107,100,000	4,424,300,000	3,502,900,000	8,295,900,000

Imports and exports of the precious metals in the German Customs Union, 1872-85.

Years.	Gold.				Silver.			
	Imports.	Exports.	Excess of imports.	Excess of exports.	Imports.	Exports.	Excess of imports.	Excess of exports.
	Marks.	Marks.	Marks.	Marks.	Marks.	Marks.	Marks.	Marks.
1872.....	35,280,000	101,880,000	.....	66,600,000	171,000,000	72,090,000	98,910,000	.....
1873.....	354,000,000	52,935,000	301,065,000	.....	147,200,000	134,100,000	13,200,000	.....
1874.....	17,550,000	35,100,000	.....	17,550,000	50,640,000	71,766,000	.....	21,126,000
1875.....	15,400,000	28,000,000	.....	12,600,000	30,320,000	38,880,000	.....	8,560,000
1876.....	88,200,000	22,400,000	65,800,000	.....	22,040,000	35,334,000	.....	12,294,000
1877.....	73,000,000	46,500,000	26,500,000	.....	29,860,000	19,656,000	10,204,000	.....
1878.....	168,600,000	1,400,000	167,200,000	.....	40,000,000	27,924,000	12,076,000	.....
1879.....	84,800,000	5,600,000	81,200,000	.....	32,750,000	40,200,000	.....	7,450,000
1880.....	20,850,000	29,683,000	.....	8,833,000	18,346,000	21,084,000	.....	2,738,000
1881.....	14,078,000	45,645,000	.....	31,567,000	13,205,000	17,503,000	.....	4,298,000
1882.....	28,641,000	39,228,000	.....	10,586,000	6,518,000	14,362,000	.....	7,844,000
1883.....	20,854,000	42,132,000	.....	21,278,000	6,311,000	20,662,000	.....	14,351,000
1884.....	18,424,000	33,083,000	.....	14,659,000	5,701,000	31,379,000	.....	25,678,000
1885.....	42,551,000	24,528,000	18,023,000	.....	2,987,000	19,407,000	.....	16,420,000

Figures both for imports and exports are inclusive of precious metals in bars, scraps, and coin.

It is admitted that these figures are incomplete, but we have felt in duty bound to insert them for the sake of completing our statements.

In conclusion, we insert summary tables of the recorded exports and imports of gold and silver, as stated in the official publications of the Netherlands, Belgium, Russia, Austro-Hungary, the Scandinavian countries, and Spain.

Average of the years.	Gold and silver.			
	The Netherlands.		Belgium.	
	Imports.	Exports.	Imports.	Exports.
1851-'55.....	<i>Florins.</i> 11,271,269	<i>Florins.</i> 10,136,948	<i>Francs.</i> *41,834,059	<i>Francs.</i> *57,831,088
1856-'60.....	17,149,000	18,427,871	64,146,218	183,093,803
1861-'65.....	13,335,151	18,392,899	37,410,242	134,283,694
1866-'70.....	21,157,817	13,004,681	75,151,688	23,870,658
1871-'75.....	25,247,515	9,254,794	169,223,368	18,077,993

Average of the years.	The Netherlands.				Belgium.			
	Gold.		Silver.		Gold.		Silver.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
1876-'80.....	<i>Florins.</i> 11,213,559	<i>Florins.</i> 2,258,168	<i>Florins.</i> 6,603,793	<i>Florins.</i> 4,239,293	<i>Francs.</i> 8,313,212	<i>Francs.</i> 928,804	<i>Francs.</i> 6,352,788	<i>Francs.</i> 780,036
1881.....	6,638,410	7,917,920	2,429,977	48,526	1,299,170	62,000	22,932,680	17,539,300
1882.....	9,985,120	4,807,987	2,639,895	66,530	16,422,810	19,116,780	30,556,200	2,249,370
1883.....	28,342,544	767,778	2,308,644	276,757	2,470,510	16,723,380	87,306,820	18,221,520
1884.....	14,074,680	2,004,500	1,757,983	1,057,525	6,748,310	20,920,320	86,873,580	9,795,700

* Average for the years 1852-'55.

Years.	Gold and silver.							
	Austro-Hungary.				Russia.			
	Imports.	Exports.	Excess of imports.	Excess of exports.	Imports.	Exports.	Excess of imports.	Excess of exports.
	<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>	<i>Sils. rubles.</i>	<i>Sils. rubles.</i>	<i>Sils. rubles.</i>	<i>Sils. rubles.</i>
1871....	59,383,000	55,488,000	3,895,000	.....	7,421,000	17,675,900	.....	10,254,000
1872....	36,500,000	66,144,000	.....	29,644,000	13,089,000	7,905,000	5,184,000	.....
1873....	40,934,000	81,150,000	9,784,000	.....	20,552,000	14,664,000	5,888,000	.....
1874....	19,933,000	18,942,000	991,000	.....	16,630,000	17,496,000	.....	866,000
1875....	16,123,000	18,683,000	.....	2,560,000	6,441,000	28,035,000	.....	21,594,000
1876....	35,529,000	30,929,000	4,600,000	.....	5,428,000	103,254,000	.....	97,828,000
1877....	30,497,000	15,550,000	14,947,000	.....	10,950,000	19,251,000	.....	8,301,000
1878....	52,697,000	15,645,000	37,052,000	.....	16,523,000	14,156,000	2,367,000	.....
1879....	63,694,000	9,469,000	54,225,000	.....	14,770,000	10,188,000	4,582,000	.....
1880....	32,199,000	22,537,000	9,662,000	.....	12,890,000	28,778,000	.....	16,388,000
1881....	36,507,000	5,915,000	30,592,000	.....	9,946,000	68,988,000	.....	59,042,000
1882....	22,545,000	46,862,000	.....	26,317,000	9,774,000	80,518,000	.....	70,744,000
1883....	21,741,000	4,154,000	17,587,000	.....	*6,554,000	*19,938,000	.....	13,384,000
1884....	12,671,000	9,891,000	2,780,000	.....	*5,320,000	*3,458,000	1,862,000	.....

* European Russia only.

Years.	Gold and silver.						
	Scandinavian countries.				Spain.		
	Imports.	Exports.	Excess of imports.	Excess of exports.	Imports.	Exports.	Excess of imports.
	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Pesetas.</i>	<i>Pesetas.</i>	<i>Pesetas.</i>
1871*	10,806,000	2,085,000	8,721,000	.....	107,594,000	8,543,000	99,051,000
1872*	12,915,000	113,000	12,802,000	.....	106,416,000	2,502,000	103,914,000
1873*	26,173,000	18,074,000	8,099,000	.....	105,404,000	6,372,000	99,032,000
1874*	12,779,000	8,338,000	4,441,000	.....	63,362,000	6,452,000	56,910,000
1875....	22,293,000	12,496,000	9,797,000	.....	92,229,000	4,316,000	87,913,000
1876....	39,774,000	40,883,000	.....	1,109,000	12,011,000	4,232,000	7,759,000
1877....	23,222,000	16,425,400	6,796,600	.....	49,520,000	2,083,000	47,437,000
1878....	26,054,000	11,537,000	14,517,000	.....	38,882,000	2,286,000	36,596,000
1879....	34,358,000	20,007,000	14,351,000	.....	34,079,000	3,061,000	31,018,000
1880....	26,879,000	8,955,000	17,924,000	.....	89,336,000	12,736,000	76,600,000
1881....	15,063,000	12,136,000	2,927,000	.....	10,473,000	6,490,000	3,983,000
1882....	11,763,000	8,131,000	3,632,000	.....	40,917,000	7,103,000	33,814,000
1883....	15,089,000	6,851,000	8,238,000	.....	.....	4,154,000	.....
1884....	10,922,000	4,037,000	6,895,000	.....	35,171,246	4,392,768	30,778,478

* Exclusive of the imports and exports of Denmark, which have not been ascertained for the years 1871-74.

If we now summarize the total imports and exports of the precious metals in the various countries for recent years, we get in round numbers the following results for the periods 1871-'75 and 1876-'84:

Periods.	Imports of precious metals.	Exports of precious metals.	Excess of imports.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
1871-'75.....	9,103,200,000	7,441,800,000	1,661,400,000
1876-'84.....	12,187,100,000	10,395,100,000	1,742,000,000
Total.....	21,240,300,000	17,836,900,000	3,403,400,000

PART V.

**THE SUPPLY AND QUANTITY IN CIRCULATION OF THE
PRECIOUS METALS IN CIVILIZED COUNTRIES.**

1. HOLDINGS OF THE PRECIOUS METALS BY THE MORE IMPORTANT BANKS.

In the preceding parts (excepting those which considered the ratio of the precious metals and the coinage at the mints) we have had to do, in the main, with more or less uncertain estimates. In the present part we are able, to a very considerable extent, to give exact figures. This is beyond doubt the case with the statements of the holdings of gold and silver by the great banks and by certain Government treasuries. In former times these holdings were treated as important secrets, whose publication might bring serious damage, not only to the banks themselves, but to the commercial community in general. This fear has gradually disappeared, and publicity is now almost without exception a matter of course.

Before the depreciation of silver in the years after 1870, gold and silver holdings were not separately stated in the returns of the banks, as no practical interest attached to such a distinction. The situation has now changed, and most banks state the proportion of gold and silver in their holdings; and where this is not done regularly, at least no secret is made of it.

It goes without saying that a great interest attaches to the cash holdings, not only of individual banks, but of all institutions which deal in and hold large sums of coin, while similar interest attaches to the changes in the holdings. The supply of coin in the pockets and the tills of the general public of a country undergoes little change, barring unusual contingencies. Considerable changes take place in it only in the course of longer periods of time. On the other hand, important shiftings constantly take place in the coin holdings of the great banks, and these shiftings are important for the policy of the banks themselves, and for the business interest of the community at large. We therefore directed our attention at the very outset of the present publication to the compilation of the varying coin holdings of the banks, especially since 1871. In regard to the Bank of England, the Scotch and Irish banks of issue, the Bank of France, and the national banks of the United States, etc., sufficient information was readily obtained from the well-known statistical sources for those countries. In regard to other banks, it would perhaps have been possible to secure the desired information from scattered notices in newspapers or annual reports. Such a proceeding, however, would have involved much labor and time, and yet would hardly have secured the desired result. We have asked, therefore, the officers of the remaining large banks to do us the favor to prepare and forward to us the desired detailed statements, arranged in a specific form. Our request has been most willingly granted, and we are enabled to present the figures of the cash holdings and note circulation of the banks in as complete and exact a form as could possibly be wished. This holds

good for the Bank of the Netherlands, the Belgian Bank, the Italian banks of issue, the Swiss banks of issue, the Austro-Hungarian Bank, the Russian Bank, the National Bank of Denmark, the Norwegian Bank, the Imperial Bank and the private banks of Sweden. In regard to the Imperial Bank of Germany, detailed statements are to follow.

Side by side with the figures as to coin holdings we give statements of the contemporary total note circulation of the banks and of the amount of notes not covered by coin. The latter amount has been calculated in the usual manner, and of course can alone be counted as part of the circulation medium, if the coin holdings of the banks are also counted as part of the monetary supply. We mention this, because sometimes both the total note circulation and the coin holdings of banks are counted in reckoning the quantity of money in circulation; a proceeding which causes that quantity to appear larger than in fact it is.

On the other hand, it must be remembered that the designation "notes not covered by coin," is better than "uncovered notes," since the notes are covered not only by cash in the bank, but also by the securities authorized by the various statutes. Yet even the former designation is not quite exact, since the bank's coin is not destined solely to the redemption of notes issued. It is pledged not only to the immediate payment of notes issued, but also to the payment of all obligations that may come due on demand. Deposits especially are to be considered, since the creditors have the right to demand the immediate repayment of these as much as of bank notes. Checks are, in this respect, exactly similar to notes. Since the practice of deposits and the use of checks has come into increasing use in modern times, it is no longer proper to judge of the solvency of a bank of issue solely from the proportion of coin to notes issued; the essential thing is the proportion of coin to the total of obligations payable on demand. The new Swiss law on bank notes has made a sound provision in this respect by enacting that every bank shall keep in coin 40 per cent. of the notes issued, the rest of the coin remaining available for other purposes. The legislation of the Netherlands provides that the banks shall keep at least 40 per cent., not only of the notes issued, but also of all obligations payable on demand.

In the tables we have followed the usual plan of comparing the coin holdings, not with the sum of all obligations payable on demand, but with the excess of notes issued above the coin held; yet we think it necessary to call attention to the importance of the deposit obligations as well.

PRODUCTION OF THE PRECIOUS METALS.

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Banks of the United Kingdom.*

Years.	Date of bank report.	Bank of England.			Banks of Scotland and Ireland.		Notes of all banks of issue in United Kingdom not covered by coin.
		Coin and bullion.	Notes.		Coin and bullion.	Notes.	
			Total.	Not covered by coin.*			
1851.....	End of December..	£17,319,454	£19,767,164	£2,447,620	£2,091,734	£8,083,741	£14,620,830
1856.....	do.....	10,230,311	19,427,714	9,197,403	4,451,872	11,656,686	23,523,891
1861.....	do.....	15,961,439	20,818,190	4,856,751	5,094,908	11,054,974	17,050,807
1866.....	do.....	19,415,362	23,745,288	4,329,926	5,144,682	10,773,962	15,394,159
1871.....	End of June.....	26,609,540	24,556,228	.....	6,353,987	12,704,659	9,242,352
	End of December..	24,914,822	25,009,023	94,201	7,187,649	13,292,534	11,438,447
1872.....	End of June.....	24,065,094	26,447,155	2,382,061	6,700,161	13,261,891	13,022,553
	End of December..	24,014,298	25,561,205	1,546,907	7,086,326	13,252,201	12,287,268
1873.....	End of June.....	22,336,814	26,060,885	3,724,071	6,851,398	12,990,288	14,680,937
	End of December..	22,618,685	25,807,070	3,188,385	7,153,414	13,042,069	13,765,737
1874.....	End of June.....	23,929,691	27,080,915	3,160,314	7,102,401	12,946,343	13,235,661
	End of December..	21,492,793	26,141,530	4,648,737	7,603,794	13,362,766	15,210,067
1875.....	End of June.....	26,689,116	27,936,215	1,237,099	7,271,252	13,340,490	11,562,922
	End of December..	21,703,879	27,625,155	5,821,276	8,108,162	14,244,931	16,760,853
1876.....	End of June.....	29,959,412	27,661,255	.....	7,405,700	13,190,132	9,485,100
	End of December..	28,214,165	28,632,775	468,610	8,340,476	14,436,198	10,319,679
1877.....	End of June.....	26,836,398	27,994,045	1,167,647	7,308,739	13,240,656	13,006,430
	End of December..	24,380,794	27,333,880	2,947,086	7,956,252	13,695,588	12,990,116
1878.....	End of June.....	22,663,217	28,521,525	5,918,308	7,062,431	12,509,040	16,161,995
	End of December..	28,088,361	31,782,010	4,693,649	7,867,810	13,294,666	12,073,274
1879.....	End of June.....	35,286,269	29,536,865	.....	6,887,900	11,581,271	3,363,493
	End of December..	27,691,562	27,634,285	.....	7,068,938	12,112,479	8,487,472
1880.....	End of June.....	29,319,390	27,307,380	.....	6,333,068	11,096,811	7,371,927
	End of December..	24,238,616	26,320,540	2,081,924	7,394,978	13,065,322	11,183,230
1881.....	End of June.....	27,234,912	26,954,040	.....	6,473,932	11,797,674	9,345,350
	End of December..	20,316,994	25,510,870	5,193,876	7,418,513	13,549,549	14,895,232
1882.....	End of June.....	24,380,941	26,070,945	1,690,004	6,920,022	12,681,663	11,892,182
	End of December..	20,395,245	25,693,195	5,297,950	8,384,425	14,700,088	15,144,568
1883.....	End of June.....	22,438,753	25,473,995	3,035,242	7,268,498	12,739,499	13,357,689
	End of December..	21,566,273	24,990,535	3,424,262	8,084,557	13,771,181	12,587,643
1884.....	End of June.....	25,075,683	25,315,320	239,637	7,143,669	12,222,719	8,577,519
	End of December..	20,695,496	25,037,210	4,341,714	7,683,434	13,147,337	12,711,678
1885.....	End of June.....	27,481,488	25,798,185	.....	6,510,622	11,560,374	6,308,852
	End of December..	20,115,278	24,513,110	4,397,882	8,125,962	12,856,797	11,977,754
1886.....	End of June.....	21,319,430	25,241,110	3,921,680	7,351,791	12,333,400	11,722,158

* In this table, and in those following, "not covered by coin" will be understood to mean "not covered by coin and bullion."

Banks of Australasia.

Years.	Coin and bullion.	Notes in circulation.	Years.	Coin and bullion.	Notes in circulation.
1874.....	£8,275,720	£4,116,334	1880.....	£12,183,652	£4,383,128
1875.....	8,629,678	4,257,058	1881.....	11,247,502	4,907,514
1876.....	9,605,336	4,228,854	1882.....	10,788,060	5,346,633
1877.....	8,738,651	4,338,694	1883.....	10,554,768	5,466,862
1878.....	8,365,272	4,383,071	1884.....	14,183,400	5,409,891
1879.....	10,306,760	4,087,485	1885.....	13,177,965	5,623,205

Bank of France.

Years.	Date of bank report.	Coin and bullion.			Notes.	
		Gold.	Silver.	Total.	Total.	Not covered by coin.
		<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
1850....	End of December....	39,000,000	430,900,000	469,900,000	496,175,200	26,275,200
1851....	do	87,400,000	480,300,000	567,700,000	583,043,900	15,343,900
1856....	do	74,600,000	105,000,000	179,600,000	585,344,400	405,744,400
1861....	do	229,000,000	92,700,000	221,700,000	723,062,400	501,362,400
1866....	do	559,600,000	137,100,000	696,700,000	936,969,800	240,269,800
1870....	do	428,700,000	68,500,000	497,200,000	1,718,478,600	1,221,278,600
1871....	do	553,400,000	81,200,000	634,600,000	2,307,000,000	1,672,400,000
1872....	End of June			739,875,000	2,277,175,000	1,537,300,000
	End of December....	658,700,000	132,600,000	791,300,000	2,787,800,000	1,996,500,000
1873....	End of June			776,297,816	2,885,078,508	2,108,780,692
	End of December....	611,300,000	156,300,000	767,600,000	2,886,300,000	2,118,700,000
1874....	End of June			1,195,458,839	2,522,518,365	1,327,059,526
	End of December....	1,012,100,000	313,200,000	1,325,300,000	2,644,838,970	1,319,538,970
1875....	End of June			1,679,464,959	2,423,348,910	855,883,951
	End of December....	1,174,300,000	505,000,000	1,679,300,000	2,438,044,785	758,744,785
1876....	End of June			2,061,732,547	2,430,783,503	369,050,958
	End of December....	1,530,400,000	638,600,000	2,169,000,000	2,562,767,935	393,767,935
1877....	End of June			2,274,545,679	2,429,191,400	154,645,721
	End of December....	1,177,100,000	865,400,000	2,042,500,000	2,545,756,935	503,256,935
1878....	End of June			2,147,100,785	2,284,881,740	137,780,955
	End of December....	983,600,000	1,058,100,000	2,041,700,000	2,298,778,385	257,078,385
1879....	End of June			2,252,003,654	2,229,208,995	
	End of December....	741,600,000	1,227,600,000	1,969,200,000	2,343,000,000	373,800,000
1880....	End of June	798,387,897	1,248,208,875	2,046,596,772	2,326,013,140	279,416,368
	End of December....	564,268,849	1,222,604,414	1,786,873,263	2,476,727,415	689,854,152
1881....	End of June	648,613,887	1,242,371,688	1,890,985,575	2,596,818,885	705,833,310
	End of December....	655,696,391	1,161,468,130	1,817,164,521	2,778,428,840	961,264,319
1882....	End of June	975,427,225	1,160,016,297	2,135,443,522	2,672,711,460	537,267,938
	End of December....	964,481,335	1,091,275,662	2,055,756,997	2,790,357,475	734,600,478
1883....	End of June	1,005,182,862	1,049,905,643	2,055,088,505	2,900,753,535	845,665,030
	End of December....	950,553,401	995,969,899	1,946,523,300	3,101,765,710	1,155,242,410
1884....	End of June	1,047,803,949	1,017,058,727	2,064,862,676	2,947,512,255	882,649,579
	End of December....	1,001,418,960	1,028,389,476	2,029,808,436	2,977,591,695	947,783,259
1885....	End of June	1,150,809,185	1,083,725,915	2,234,535,100	2,763,044,135	528,591,035
	End of December....	1,157,415,160	1,085,432,782	2,242,847,942	2,918,050,745	675,202,803
1886....	End of June	1,377,367,074	1,126,695,112	2,504,062,186	2,828,308,470	324,246,284

Swiss banks of issue.

Years.	Date of bank report (statements are weekly).	Coin and bullion.			Notes.	
		Gold.	Silver.	Total.	Total.	Not covered by coin.
		<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
1876....	End of December....			37,890,000	78,585,000	40,675,000
1877....	do			33,815,000	76,101,000	42,786,000
1878....	do			34,094,000	80,613,000	46,519,000
1879....	do			41,767,000	86,070,000	44,303,000
1880....	do			45,497,000	93,774,000	48,277,000
1881....	do			38,929,000	98,500,000	59,571,000
1882....	do	83,197,000	21,394,000	54,591,000	96,934,000	42,343,000
1883....	End of June	34,542,000	20,983,000	55,525,000	91,178,000	35,653,000
	End of December....	39,401,000	24,021,000	63,422,000	113,388,000	49,966,000
1884....	End of June	43,059,000	17,779,000	60,838,000	106,009,000	45,771,000
	End of December....	46,883,000	25,846,000	72,729,000	121,272,000	48,543,000
1885....	End of June	47,140,000	18,654,000	65,794,000	113,305,000	47,511,000
	End of December....	49,163,000	20,438,000	69,501,000	124,111,000	54,610,000
1886....	End of June	49,884,000	17,398,000	67,282,000	113,237,000	45,975,000

Italian Banks of Issue.

Years.	Date of bank report.	Coin and bullion.			Notes.		Government paper money.
		Gold.	Silver.	Total.	Total.	Note covered by coin.	
		<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>
1861....	End of December.	49,672,321		49,672,321	107,678,670	58,006,349	.....
1865....	do.	127,998,925		127,998,925	170,396,250	42,397,325	.....
1870....	do.	77,234,797	168,474,219	245,709,016	442,435,438	196,726,422	.....
1871....	do.	93,339,258	127,960,835	221,300,093	577,573,623	356,273,530	.....
1872....	do.	91,879,250	112,554,645	204,433,895	623,382,254	418,948,359	.....
1873....	do.	91,465,728	117,837,362	209,303,090	664,329,910	455,026,820	.....
1874....	do.	90,971,133	110,985,718	201,956,851	632,229,800	431,272,949	.....
1875....	do.	67,256,762	76,025,228	143,281,990	621,237,832	477,955,842	.....
1876....	End of June.	70,073,057	75,419,256	145,492,313	589,904,495	444,412,182	.....
	End of December.	75,494,492	73,478,072	148,972,564	646,029,437	497,056,873	.....
1877....	End of June.	76,277,008	72,514,639	148,791,647	664,193,759	515,402,112	.....
	End of December.	76,805,285	72,527,127	149,332,412	628,560,592	479,228,180	.....
1878....	End of June.	77,440,613	71,717,212	149,157,225	629,020,664	479,863,439	.....
	End of December.	79,364,617	71,595,117	150,959,734	672,283,318	521,323,584	.....
1879....	End of June.	80,424,783	69,157,259	149,582,042	698,184,164	548,602,122	.....
	End of December.	80,427,468	67,388,642	147,816,110	732,443,334	584,627,224	.....
1880....	End of June.	71,924,335	66,000,965	138,525,300	719,475,535	580,950,235	.....
	End of December.	77,616,701	97,371,989	174,988,690	748,068,280	573,979,590	.....
1881....	End of June.	74,200,218	65,514,347	139,714,565	730,458,719	590,744,154	.....
	End of December.	71,304,720	63,573,306	134,878,026	735,579,197	600,701,171	.....
1882....	End of June.	76,986,905	62,685,617	139,672,522	732,767,109	593,094,587	.....
	End of December.	77,198,478	80,762,920	157,961,398	732,373,667	574,412,269	.....
1883....	End of June.	156,503,575	103,069,572	259,573,147	764,026,619	504,452,872	3,772,985
	End of December.	220,248,969	99,303,063	319,552,062	793,915,066	474,363,004	89,885,650
1884....	End of June.	259,846,199	96,149,625	355,995,824	841,858,170	485,862,346	218,165,213
	End of December.	305,694,349	64,893,886	370,588,235	899,096,974	528,508,739	272,179,950
1885....	End of June.	283,821,967	51,102,632	339,924,599	920,835,593	580,910,894	289,948,330
	End of December.	280,606,270	56,015,463	336,621,733	948,451,677	611,829,944	297,122,660
1886....	End of June.	300,118,270	64,934,320	365,052,590	996,592,282	631,839,692	305,094,720

In Italy the reserve for notes in circulation includes not only the precious metals held by the banks, but also copper coins up to 1000 of the total to be covered, and the old note issues and government paper money, both of these latter being now redeemable at the public treasury in gold or silver. Taking these into consideration, we find that the uncovered note circulation of the Italian banks of issue was as follows, at the end of the years:

Years.	Circulation.	Years.	Circulation.	Years.	Circulation.
	<i>Lire.</i>		<i>Lire.</i>		<i>Lire.</i>
1861.....	58,006,349	1878.....	356,351,912	1882.....	428,870,437
1865.....	42,397,325	1879.....	409,482,978	1883.....	344,885,458
1871.....	270,107,510	1880.....	413,128,425	1884.....	404,751,938
1876.....	345,831,585	1881.....	438,848,645	1885.....	514,766,778
1877.....	363,298,625				

By an act of April 7, 1881, and by regulations for the execution of that act, of date June 16, 1881, and March 1, 1883, the Government was empowered to issue 340,000,000 lire of Government paper money—240,000,000 lire in 10-lire pieces and 100,000,000 lire in 5-lire pieces. The issue began in April, 1883. The coin holdings of the Government treasury amounted, on December 31, 1883, to 467,069,283 lire in decimal coins and 8,197,623 lire in other coins, chiefly old Bourbon piasters; on December 31, 1884, to 355,606,321 and 26,821,589 lire, respectively; on December 31, 1885, to 222,000,000 lire and 77,000,000 lire, respectively.

National Bank of Belgium.

Years.	Date of bank report.	Coin and bullion.			Notes.	
		Gold.	Silver.	Total.	Total.	Not covered by coin.
		<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
1860....	End of December....	1,421,500	61,602,500	63,024,000	117,900,000	54,876,000
1861....	do.....			69,048,500	117,848,000	48,799,500
1865....	do.....			55,074,000	125,106,000	70,032,000
1870....	do.....	24,463,000	71,152,000	95,615,000	202,528,000	106,913,000
1871....	do.....	38,985,000	84,286,000	123,271,000	228,690,000	105,419,000
1872....	do.....	37,879,000	77,791,000	115,670,000	297,672,000	182,002,000
1873....	End of June.....			139,844,000	351,975,000	212,131,000
	End of December....	37,806,000	67,687,000	105,493,000	320,586,000	215,093,000
1874....	End of June.....	41,160,000	60,978,000	102,138,000	300,298,000	198,160,000
	End of December....	58,444,000	59,803,000	118,247,000	328,874,000	210,627,000
1875....	End of June.....	66,685,000	56,038,000	122,723,000	322,153,000	190,430,000
	End of December....	77,905,000	44,757,000	122,622,000	340,254,000	217,592,000
1876....	End of June.....	77,330,000	58,507,000	135,837,000	330,674,000	194,837,000
	End of December....	79,040,000	37,635,000	116,675,000	364,560,000	247,885,000
1877....	End of June.....	69,070,000	35,980,000	105,050,000	345,535,000	240,485,000
	End of December....	61,200,000	38,050,000	99,250,000	342,108,000	242,858,000
1878....	End of June.....	60,580,000	29,970,000	90,550,000	325,120,000	234,570,000
	End of December....	61,330,000	37,840,000	99,170,000	313,620,000	214,450,000
1879....	End of June.....	62,880,000	40,500,000	103,380,000	309,950,000	236,570,000
	End of December....	71,635,000	33,780,000	105,415,000	334,975,000	229,560,000
1880....	End of June.....	61,655,000	32,745,000	94,400,000	311,070,000	216,670,000
	End of December....	73,063,000	25,727,000	98,790,000	339,970,000	241,180,000
1881....	End of June.....	77,510,000	26,315,000	103,825,000	331,875,000	227,550,000
	End of December....	77,340,000	22,135,000	99,475,000	354,755,000	255,280,000
1882....	End of June.....	62,445,000	31,815,000	94,260,000	334,185,000	239,925,000
	End of December....	71,885,000	27,560,000	99,445,000	355,700,000	256,255,000
1883....	End of June.....	69,320,000	22,600,000	91,920,000	336,720,000	244,800,000
	End of December....	71,885,000	26,215,000	98,100,000	357,610,000	256,510,000
1884....	End of June.....	64,895,000	30,465,000	95,360,000	340,300,000	244,940,000
	End of December....	65,925,000	30,610,000	96,535,000	357,760,000	261,225,000
1885....	End of June.....	60,010,000	36,410,000	96,420,000	346,490,000	250,070,000
	End of December....	69,500,000	32,700,000	102,200,000	367,000,000	264,800,000
1886....	End of June.....	64,700,000	40,000,000	104,700,000	357,000,000	253,300,000

Bank of the Netherlands.

		<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>
1850....	End of December....		79,393,235	79,393,235	52,096,915	
1851....	End of June.....		92,477,888	92,477,888	51,970,990	
	End of December....		99,548,945	99,548,945	60,491,445	
1856....	End of June.....		74,278,687	74,278,687	91,478,045	17,199,358
	End of December....		68,249,588	68,249,588	79,602,145	11,362,557
1861....	End of June.....		99,864,266	99,864,266	100,574,100	709,834
	End of December....		87,403,449	87,403,449	102,359,620	14,956,171
1865....	End of June.....		95,439,653	95,439,653	114,869,095	19,429,412
	End of December....		76,908,581	76,908,931	105,960,330	29,041,799
1870....	End of June.....		95,144,360	95,144,360	130,634,890	35,490,530
	End of December....		109,957,309	109,957,309	144,106,040	34,148,731
1871....	End of June.....		118,138,726	118,138,726	146,337,490	28,198,764
	End of December....	5,522,513	138,301,458	143,823,971	157,141,810	13,317,839
1872....	End of June.....	27,969,273	125,946,177	153,915,450	164,622,415	10,706,965
	End of December....	27,069,273	92,833,525	120,832,798	158,802,630	37,969,832
1873....	End of June.....	27,833,070	78,078,371	105,911,450	159,722,950	53,811,500
	End of December....	39,972,292	68,521,280	108,493,572	167,951,995	50,458,493
1874....	End of June.....	56,297,559	76,958,547	133,256,106	169,562,980	36,306,874
	End of December....	55,297,886	82,216,088	137,513,974	175,197,000	37,883,026
1875....	End of June.....	61,180,968	80,180,888	141,361,856	180,698,590	39,336,734
	End of December....	69,250,690	89,517,731	158,768,421	186,102,595	27,334,174
1876....	End of June.....	64,457,302	97,527,588	161,984,890	181,235,960	19,251,070
	End of December....	64,257,952	89,261,289	153,519,241	190,338,439	36,714,189
1877....	End of June.....	74,792,866	76,841,035	151,633,901	195,363,235	43,729,334
	End of December....	50,509,237	76,867,697	127,376,934	200,119,426	72,742,491
1878....	End of June.....	44,298,531	70,639,252	114,937,783	193,547,850	76,600,567
	End of December....	44,634,172	77,217,843	121,852,015	186,098,880	64,246,865
1879....	End of June.....	68,887,689	77,290,800	146,147,989	187,325,680	41,177,591
	End of December....	73,425,259	80,901,513	154,326,772	189,668,690	35,241,918
1880....	End of June.....	80,378,866	81,850,905	161,729,771	188,281,960	26,532,179
	End of December....	56,861,791	84,844,426	141,706,217	194,549,505	56,843,286
1881....	End of June.....	50,440,142	89,046,566	140,086,708	200,383,440	60,896,732
	End of December....	18,158,479	89,035,713	107,194,192	195,941,100	68,746,908
1882....	End of June.....	21,868,007	92,043,580	113,911,587	183,431,525	66,518,968
	End of December....	5,272,728	92,347,767	97,620,495	189,139,295	91,518,800
1883....	End of June.....	45,948,971	95,105,212	141,054,183	185,071,630	46,917,447
	End of December....	23,506,960	93,363,465	116,879,425	187,719,110	70,848,685
1884....	End of June.....	43,347,446	94,887,583	138,325,029	190,549,250	52,234,221
	End of December....	27,146,841	93,373,017	120,519,858	193,068,095	72,988,237
1885....	End of June.....	41,530,577	95,293,552	136,824,129	184,776,875	72,852,746
	End of December....	47,904,000	95,916,000	143,820,000	192,432,000	48,612,000
1886....	End of June.....	77,004,000	98,472,000	175,476,000	198,396,000	22,920,000

PRODUCTION OF THE PRECIOUS METALS.

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Bank of Austro-Hungary (formerly the Privileged National Bank of Austria).

Years.	Date of bank report.	Coin and bullion.			Notes.		Government notes.
		Gold.	Silver.	Total.	Total.	Not covered by coin.	
		<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>	<i>Florins.</i>
1850....	End of December..	5,741	33,912,540	33,918,281	268,135,582	234,217,301	.....
1851....	End of June	5,741	44,938,821	44,944,562	252,751,059	207,806,497	.....
	End of December..	5,741	44,963,298	44,969,039	226,418,345	181,449,306	.....
1856....	End of June	786,383	63,365,406	64,151,789	386,633,979	322,482,190	.....
	End of December..	3,025,984	88,576,656	91,602,640	399,190,139	307,587,409	.....
1861....	End of June	2,243,129	87,535,122	89,778,251	473,144,397	383,306,146	.....
	End of December..	2,148,246	97,000,035	99,148,281	468,874,423	369,726,042	.....
1865....	End of June	1,507,269	115,197,124	116,704,393	342,412,662	225,708,329	.....
	End of December..	1,507,105	120,014,664	121,521,769	351,100,755	229,578,986	.....
1870....	End of June	234,923	112,347,950	112,582,873	278,494,560	165,911,687	315,037,082
	End of December..	1,424,922	112,902,253	114,327,175	290,893,160	182,565,985	352,113,519
1871....	End of June	5,379,122	115,351,582	120,730,707	282,063,760	161,333,056	359,535,749
	End of December..	44,133,439	99,093,014	143,496,444	317,333,630	173,837,086	373,600,894
1872....	End of June	48,308,711	71,532,316	119,841,027	294,503,180	174,662,153	376,860,514
	End of December..	69,403,958	73,529,370	142,933,328	318,365,470	175,432,142	375,991,886
1873....	End of June	79,085,409	65,324,943	144,410,352	338,572,450	194,162,098	376,882,873
	End of December..	70,527,742	73,308,949	143,836,691	358,942,580	215,105,889	344,033,270
1874....	End of June	73,246,582	69,169,939	142,416,521	302,142,430	159,725,909	320,730,163
	End of December..	72,741,309	66,627,580	139,368,889	293,762,350	154,393,461	345,282,194
1875....	End of June	68,037,247	69,951,508	137,998,755	291,471,060	153,472,305	336,206,966
	End of December..	67,854,048	66,562,848	134,416,896	286,242,330	151,825,436	346,501,033
1876....	End of June	66,938,712	69,659,323	136,598,035	274,706,550	138,108,515	332,055,819
	End of December..	70,222,013	66,385,770	136,607,783	295,919,060	159,302,277	355,444,167
1877....	End of June	66,792,753	69,823,758	136,616,511	269,565,440	132,948,920	344,948,998
	End of December..	67,376,205	70,077,483	137,453,688	282,267,900	144,814,212	345,961,161
1878....	End of June	67,374,595	70,077,483	137,452,078	266,834,010	129,381,932	338,288,177
	End of December..	59,801,083	86,485,777	153,800,372	288,799,000	134,938,628	364,002,389
1879....	End of June	58,634,739	91,833,640	151,634,723	288,423,260	136,788,537	321,012,022
	End of December..	58,631,872	105,613,790	164,245,662	316,759,400	152,513,733	313,030,526
1880....	End of June	55,487,010	108,243,950	166,878,699	306,082,150	139,203,461	312,429,861
	End of December..	65,010,262	108,291,351	173,301,613	328,622,890	155,321,277	327,737,769
1881....	End of June	68,725,533	122,130,826	190,856,359	354,207,560	163,351,201	320,434,947
	End of December..	64,896,332	109,636,513	174,532,845	343,267,090	168,734,245	313,187,800
1882....	End of June	79,172,407	114,567,302	193,739,709	368,633,710	174,894,001	351,493,795
	End of December..	68,440,314	119,856,975	188,297,289	360,822,150	172,524,861	333,146,609
1883....	End of June	77,682,053	121,696,815	199,378,868	380,457,420	181,078,552	359,951,770
	End of December..	64,298,229	125,062,547	189,270,767	365,548,360	176,277,593	325,413,700
1884....	End of June	78,822,133	126,568,175	205,390,308	375,725,030	170,354,722	354,248,672
	End of December..	69,272,579	126,471,815	195,744,394	343,924,180	148,179,756	313,794,984
1885....	End of June	69,722,718	129,723,317	198,796,035	363,603,020	164,806,985	338,248,952
	End of December..	63,820,000	134,610,000	198,430,000	353,430,000	155,000,000	.....

Imperial Bank and other banks of issue in Germany.

Years.	Date of bank report.	Imperial (or Prussian) Bank.			Banks of issue, including Imperial Bank.		
		Coin and bullion.	Notes.		Coin and bullion.	Notes.	
			Total.	Not covered.		Total.	Not covered.
		Marks.	Marks.	Marks.	Marks.	Marks.	Marks.
1851...	End of December..	63,248,000	61,052,000				
1856	do.	67,504,000	141,405,000	73,901,000			
1861	do.	266,697,000	308,730,000	42,053,000			
1866	do.	209,274,000	376,275,000	167,001,000			
1871	do.	574,309,000	726,726,000	152,417,000		1,066,599,000	
1872	do.	553,239,000	634,563,000	381,354,000		1,368,800,000	
1873	do.	703,209,000	898,719,000	185,510,000		1,380,991,000	
1874	do.	610,533,000	838,422,000	227,889,000		1,259,940,000	
1875	do.	438,043,000	735,723,000	297,680,000	609,909,000	1,050,457,000	440,548,000
1876	do.	500,592,000	796,107,000	285,515,000	610,910,000	989,170,000	378,280,000
1877	End of June	547,931,000	755,279,000	207,348,000	644,228,000	952,454,000	308,228,000
	End of December..	452,173,000	715,830,000	263,657,000	542,247,000	918,102,000	375,855,000
1878	End of June	509,998,000	672,898,000	162,930,000	595,557,000	863,012,000	267,455,000
	End of December..	472,111,000	668,737,000	191,628,000	560,211,000	857,761,000	297,556,000
1879	End of June	546,082,000	745,095,000	199,012,000	684,564,000	932,466,000	297,902,000
	End of December..	539,378,000	792,908,000	253,435,000	628,399,000	990,083,000	363,694,000
1880	End of June	582,114,000	814,303,000	232,189,000	665,411,000	1,012,027,000	346,616,000
	End of December..	522,417,000	806,118,000	283,701,000	614,939,000	1,007,650,000	392,711,000
1881	End of June	582,188,000	839,184,000	256,996,000	665,043,000	1,036,535,000	371,492,000
	End of December..	514,440,000	856,388,000	344,948,000	596,581,000	1,057,953,000	461,372,000
1882	End of June	569,929,000	828,003,000	258,074,000	650,235,000	1,023,854,000	378,619,000
	End of December..	558,730,000	831,131,000	272,401,000	642,391,000	1,038,569,000	391,178,000
1883	End of June	615,496,000	820,428,000	204,929,000	694,566,000	1,012,794,000	318,206,000
	End of December..	558,577,000	829,713,000	271,136,000	643,473,000	1,029,831,000	386,358,000
1884	End of June	612,661,000	819,065,000	206,404,000	694,300,000	1,016,750,000	322,450,000
	End of December..	517,828,000	854,187,000	336,309,000	602,069,000	1,061,578,000	459,509,000
1885	End of June	597,103,000	814,427,000	217,324,000	678,196,000	1,012,815,000	334,619,000
	End of December..	618,242,000	858,925,000	240,683,000	700,976,000	1,061,623,000	360,647,000
1886	End of June	705,190,000	910,180,000	204,940,000	787,193,000	1,107,283,000	320,090,000

The directors of the Imperial Bank of Germany thought that they could not comply with our request, in so far as it inquired about the proportion of their gold holdings to their other coin holdings, in the same way as that request had been complied with by the other more important banks. The question of making public statements in regard to this proportion had been considered several years before, and it had been concluded to make no such statements, since the statute establishing the bank had not contemplated them.

In the absence of authentic statements we are compelled to make an estimate, probably close to the truth, of the gold holdings of the Imperial Bank. Such an estimate is needed the more, as foreign periodicals of high standing—for example, the London Economist, on February 7, 1885—put the holdings at a figure obviously too low, namely, £6,725,000. A notice published in September, 1880, which was not contradicted and whose accuracy we have no reason to doubt, states that the coin holdings of the Imperial Bank at that time consisted of 185,000,000 marks of imperial gold coin, 317,000,000 marks of thalers, and of 33,000,000 marks of imperial silver coins. Since that date it is clear that the bank has endeavored to diminish its holding of thalers by encouraging their circulation in the community and their use by public offices. This endeavor seems to have succeeded in part, for thaler pieces held by the post-office, which were in October, 1880, only 1,061,000 marks, amounted in October, 1884, to 1,809,000 marks, and in October, 1885, to 1,626,000 marks. It may be assumed that a similar increase in the use of thalers took place in the community at large.

We probably come fairly close to the truth if we estimate 260,000,000 to 280,000,000 of silver as the amount held by the Imperial Bank in its coin holdings.

The coin holdings of the remaining banks of issue in Germany were ascertained to be as follows :

Years.	Gold coins of the Empire.	Thalers.	Silver coins of the Empire.	Imperial treasury certificates.
October 1881.....	<i>Marks.</i> 79,452,000	<i>Marks.</i> 2,309,000	<i>Marks.</i> 1,008,000	<i>Marks.</i>
1882.....	80,038,000	4,290,000	1,129,000	2,539,000
1883.....	77,064,000	5,124,000	1,430,000	1,044,000
1884.....	77,338,000	4,811,000	1,502,000	1,125,000
1885.....	77,968,000	2,716,000	1,067,000	863,000

Imperial Bank of Russia.

Years.	Date of bank report.	Coin and bullion.		Credit notes.		Funds.
		Gold.	Silver.	Issued.	Temporarily issued.	
		<i>Rubles.</i>	<i>Rubles.</i>	<i>Rubles.</i>	<i>Rubles.</i>	<i>Rubles.</i>
1870.....	January 1.....	133,129,996.58	8,686,026.12	721,788,189	.....	12,000,000.00
1871.....	January 1.....	133,935,571.28	7,959,204.55	715,809,884	.....	7,828,712.94
1872.....	January 1.....	151,593,935.18	4,704,966.65	724,214,040	.....	1,828,712.94
1873.....	January 1.....	186,619,358.57	9,334,984.26	763,869,451	.....	1,828,712.94
	July 1.....	180,120,369.45	11,433,973.00	768,369,451	.....	1,828,712.94
1874.....	January 1.....	193,189,592.37	24,053,762.46	792,262,436	.....	8,932,712.94
	July 1.....	193,997,254.00	23,367,306.00	785,279,669	.....	1,828,712.94
1875.....	January 1.....	199,741,320.44	29,657,051.49	797,313,480	.....	1,828,712.94
	July 1.....	199,983,587.50	29,414,784.42	797,313,480	.....	1,828,712.94
1876.....	January 1.....	201,080,881.05	28,317,490.88	797,313,480	.....	1,828,712.94
	July 1.....	145,638,972.32	28,173,163.46	733,908,498	.....	1,714,596.68
1877.....	January 1.....	122,244,807.12	26,740,382.86	735,222,025	54,800,000	31,550,112.69
	July 1.....	122,772,157.01	24,898,531.43	734,772,025	112,000,000	32,415,114.23
1878.....	January 1.....	124,823,866.47	22,960,988.22	734,772,025	305,150,000	32,300,997.98
	July 1.....	130,310,829.27	17,473,975.42	728,910,155	429,600,089	32,300,997.98
1879.....	January 1.....	138,512,267.05	9,283,342.28	720,265,125	467,850,000	28,969,693.98
	July 1.....	144,472,852.35	3,348,368.71	716,515,125	415,650,000	25,229,693.98
1880.....	January 1.....	151,636,332.64	2,536,744.47	716,515,125	446,000,000	19,594,963.98
	July 1.....	152,426,129.94	1,158,072.17	716,515,125	377,000,000	19,583,838.98
1881.....	January 1.....	170,336,427.92	1,136,067.37	716,515,125	417,000,000	.....
	July 1.....	170,340,577.22	1,131,918.07	716,515,125	417,000,000	.....
1882.....	January 1.....	170,341,624.76	1,130,370.53	716,515,125	417,000,000	.....
	July 1.....	170,342,664.88	1,129,330.41	716,515,125	417,000,000	.....
1883.....	January 1.....	170,344,234.23	1,128,261.06	716,515,125	417,000,000	.....
	July 1.....	170,344,247.17	1,128,248.12	716,515,125	417,000,000	.....
1884.....	January 1.....	170,344,274.77	1,128,220.52	716,515,125	387,000,000	.....
	July 1.....	170,341,811.36	1,127,883.96	716,515,125	357,000,000	.....
1885.....	January 1.....	170,344,826.90	1,127,688.69	716,515,125	857,060,000	.....
	July 1.....	170,345,052.41	1,127,412.88	716,433,349	330,000,000	.....
1886.....	January 1.....	170,346,090.87	1,126,404.42	716,433,349	330,000,000	.....
	July 1.....	170,346,090.87	1,126,404.42	716,433,349	330,000,000	.....

Since the year 1881 the "funds" account has disappeared from the public statements of the Russian Bank.

In regard to the temporary issues of credit notes, it should be said that the minister of finance has assigned to the bank, for their redemption, certain 5 per cent. Government securities to the amount of about 100,000,000 rubles; but this security is not to be actually transferred for the present.

The coin holdings of the Central Bank and of its branches, respectively, have been stated to us as follows:

Years.	Date of bank report.	Central Bank.			Branches.	
		Gold and sil. ver.	Subsidiary coin.	Credit notes.	Coin and bullion.	Credit notes.
		<i>Rubles.</i>	<i>Rubles.</i>	<i>Rubles.</i>	<i>Rubles.</i>	<i>Rubles.</i>
1861.....	January 1.....	5,001,425.00	175,183.84	18,183,435	2,649,000	26,318,000
	July 1.....	3,791,422.17	224,185.00	71,882,877	1,672,000	44,784,000
1862.....	January 1.....	1,540,500.80	58,095.22	73,303,750	1,977,000	22,167,000
	July 1.....	4,124,214.91	119,477.42	79,505,285	2,456,000	57,271,000
1863.....	January 1.....	529,640.27	96,857.00	77,323,760	2,344,000	82,807,000
	July 1.....	841,000.00	149,918.44	72,006,818	3,008,000	113,493,000
1864.....	January 1.....	3,680,386.68	30,724.56	49,329,651	4,003,000	94,332,000
	July 1.....	503,000.00	230,218.25	96,841,820	5,078,000	78,631,000
1865.....	January 1.....	27,270,615.00	154,640.56	85,143,295	4,842,000	89,991,000
	July 1.....	44,511,718.82	167,894.19	62,082,371	6,049,000	92,601,000
1866.....	January 1.....	71,185,536.40	199,702.57	41,641,533	6,351,000	97,748,000
	July 1.....	82,063,715.09	769,912.93	51,468,797	7,413,000	111,282,000

Bank of Sweden.

Years.	Date of bank report.	Coin and bullion.			Notes.	
		Gold.	Silver.	Total.	Total.	Not covered by coin.
		<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>
1860.....	End of December.....	615,268	17,679,857	18,295,225	33,543,637	15,248,412
1861.....	.....do.....	484,509	18,907,742	19,402,251	33,610,102	14,216,851
1866.....	.....do.....	232,817	30,479,088	30,711,905	52,459,215	21,774,310
1861.....	.....do.....	199,608	21,600,245	21,799,853	37,267,309	15,467,456
1865.....	.....do.....	2,797,070	12,800,758	15,657,828	30,509,648	14,831,820
1870.....	.....do.....	6,907,812	16,941,886	23,939,698	29,309,330	5,369,641
1871.....	.....do.....	11,476,972	19,336,798	30,813,770	31,278,786	465,016
1872.....	.....do.....	6,657,715	16,215,140	22,872,855	45,261,825	22,388,970
1873.....	.....do.....	14,915,800	14,436,971	29,352,771	44,725,616	15,372,845
1874.....	.....do.....	15,887,131	10,572,936	26,460,067	40,565,903	14,105,809
1875.....	.....do.....	10,625,078	9,905,832	20,530,910	36,178,218	15,647,308
1876.....	.....do.....	10,343,796	8,942,060	14,286,456	30,079,115	15,792,620
1877.....	.....do.....	8,754,498	2,591,429	12,345,927	26,918,707	14,002,780
1878.....	.....do.....	5,914,727	4,845,125	10,759,852	26,902,616	16,142,764
1879.....	.....do.....	11,439,683	5,435,025	16,874,708	31,586,608	14,711,900
1880.....	.....do.....	11,841,078	4,384,987	16,226,065	39,403,725	23,177,660
1881.....	.....do.....	11,639,489	3,957,682	15,597,171	37,798,325	22,201,154
1882.....	.....do.....	11,485,330	3,481,716	15,967,052	37,380,300	21,413,257
1883.....	.....do.....	12,102,795	2,848,006	14,951,401	35,668,473	20,717,072
1884.....	.....do.....	13,119,484	2,951,162	16,070,646	37,992,776	21,922,130
1885.....	.....do.....	13,744,000	3,199,000	16,953,000	39,341,000	22,488,000
1886.....	End of June.....	12,783,000	3,071,000	16,454,000	42,837,000	26,383,000

The "Enskilda Bankerna," as the private banks of issue are called, were not required to redeem their notes in gold till 1875. Their cash, however, consists mainly of notes of the Bank of Sweden, which are legal tender. In the following table their holdings of such notes are stated:

Years.	Date of bank report.	Coin and notes of the Bank of Sweden.			Notes.	
		Gold.	Notes of the bank.	Total.	Total.	Not covered by coin.
		<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>
1875.....	End of June.....	6,156,766	8,437,404	14,594,170	58,353,855	52,197,089
	End of December.....	8,943,368	7,413,903	16,356,371	59,826,473	50,833,105
1876.....	End of June.....	8,023,991	8,017,460	16,041,451	61,208,759	53,154,768
	End of December.....	8,733,524	6,609,839	15,343,363	61,242,015	52,508,491
1877.....	End of June.....	8,634,125	6,638,524	15,262,649	60,199,890	51,575,765
	End of December.....	8,765,554	6,439,497	15,205,051	59,770,314	42,004,760
1878.....	End of June.....	8,579,291	7,167,189	15,746,480	49,620,526	41,041,235
	End of December.....	8,752,371	6,771,532	15,523,903	45,883,385	37,181,014
1879.....	End of June.....	8,233,495	11,290,952	19,524,447	43,776,693	35,542,598
	End of December.....	8,618,004	9,521,449	18,140,453	49,224,482	40,605,578
1880.....	End of June.....	8,069,000	10,475,448	19,544,448	46,500,796	37,804,496
	End of December.....	8,851,031	9,802,903	18,654,934	50,231,713	41,379,782
1881.....	End of June.....	8,384,297	9,150,649	17,534,946	49,933,943	41,550,646
	End of December.....	8,013,378	12,417,973	20,431,351	48,931,763	40,910,385
1882.....	End of June.....	7,800,060	8,703,539	16,504,600	48,574,671	40,683,771
	End of December.....	8,288,360	8,115,183	16,403,543	52,614,771	44,328,391
1883.....	End of June.....	8,280,575	9,104,231	17,384,806	52,156,462	43,869,837
	End of December.....	8,600,000	15,870,000	24,470,000	52,480,000	43,880,000
1884.....	End of June.....	8,203,484	8,417,629	16,621,113	51,115,280	42,911,798
	End of December.....	8,294,989	9,146,341	17,441,330	52,888,798	44,068,809
1885.....	End of June.....	7,898,727	8,888,251	16,786,978	50,788,988	42,890,261
	End of December.....	7,882,000	10,235,000	18,117,000	49,539,000	41,637,000
1886.....	End of June.....	7,849,000	10,061,000	17,910,000	48,933,000	41,084,000

Bank of Norway.

Years.	Date of bank report.	Coin and bullion.				Notes.	
		Gold.	Silver.	Total.	Of which deposits abroad.	Total.	Not covered by coin.
		<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>
1850.....	End of December.....	8,714,514	8,714,514	1,720,346	19,723,068	11,014,554	
1851.....	do.....	9,166,830	9,166,830	1,815,821	20,733,387	11,569,067	
1855.....	do.....	13,600,536	13,600,536	9,495,564	30,961,090	17,800,524	
1860.....	do.....	13,916,216	13,916,216	4,539,673	25,847,040	11,930,824	
1861.....	do.....	12,753,372	12,753,372	4,534,040	25,193,572	12,440,200	
1865.....	do.....	19,534,572	19,534,572	3,445,008	28,524,224	8,989,652	
1870.....	do.....	16,207,528	16,207,528	4,202,864	28,387,944	12,180,416	
1871.....	do.....	26,355,852	26,355,852	8,746,660	33,982,176	7,626,324	
1872.....	do.....	29,887,376	29,887,376	9,594,332	38,515,892	8,628,516	
1873.....	do.....	6,141,788	34,373,726	8,858,680	47,178,532	12,804,796	
1874.....	do.....	83,560,208	1,115,976	84,676,184	14,098,748	45,869,630	11,193,496
1875.....	do.....	24,743,792	215,744	24,959,536	10,500,392	37,239,332	12,379,996
1876.....	do.....	32,123,020	171,940	32,295,860	10,104,828	39,668,908	7,373,048
1877.....	do.....	21,422,153	101,645	21,523,718	6,887,478	36,309,024	14,725,300
1878.....	do.....	18,948,553	.....	18,948,553	5,995,493	30,967,337	12,019,184
1879.....	do.....	26,097,439	.....	26,097,439	8,373,654	32,719,923	6,622,484
1880.....	do.....	33,482,366	.....	33,482,366	10,330,571	38,713,975	5,281,809
1881.....	End of June.....	28,797,676	.....	28,797,676	9,240,178	40,651,975	14,854,299
	End of December.....	29,913,126	.....	29,913,126	8,771,374	37,653,846	7,740,720
1882.....	End of June.....	30,396,209	.....	30,396,209	8,559,247	42,421,196	12,024,987
	End of December.....	32,861,096	.....	32,861,096	10,461,065	40,578,655	7,717,559
1883.....	End of June.....	31,423,334	.....	31,423,334	10,186,948	42,175,611	10,752,277
	End of December.....	34,871,372	.....	34,871,372	11,773,914	40,955,626	6,084,254
1884.....	End of June.....	34,597,375	.....	34,597,375	11,296,916	43,821,348	9,223,873
	End of December.....	34,300,805	.....	34,300,805	11,077,441	38,983,523	4,683,318
1885.....	End of June.....	30,585,452	.....	30,585,452	9,841,527	42,843,006	12,247,554
	End of December.....	28,675,609	.....	28,675,609	9,267,631	37,147,456	8,471,847
1886.....	End of June.....	27,552,785	.....	27,552,785	9,296,113	39,374,840	11,722,056

Bank of Denmark.

Years.	Date of bank report.	Coin and bullion.			Notes.	
		Gold.	Silver.	Total.	Total.	Not covered by coin.
		<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>
1852.....	End of December.....	14,612,320	14,612,320	14,612,320	(40,000,000)	25,387,680
1860.....	do.....	21,852,000	21,852,000	21,852,000	46,681,000	24,829,000
1865.....	do.....	19,734,000	19,734,000	19,734,000	45,644,000	25,910,000
1870.....	do.....	28,137,000	28,137,000	28,137,000	53,647,000	25,510,000
1871.....	do.....	39,403,000	39,403,000	39,403,000	61,885,000	22,482,000
1872.....	do.....	27,821,000	43,125,000	70,946,000	67,508,000	24,383,000
1873.....	do.....	28,553,000	21,073,000	49,626,000	75,794,000	26,168,000
1874.....	do.....	33,360,000	15,061,000	48,421,000	71,636,000	23,215,000
1875.....	do.....	38,385,000	8,032,000	46,417,000	70,581,000	21,164,000
1876.....	do.....	44,970,000	2,156,000	47,126,000	72,318,000	23,192,000
1877.....	do.....	33,759,000	3,678,000	37,437,000	63,015,000	25,578,000
1878.....	do.....	37,667,000	3,820,000	41,487,000	66,414,000	24,927,000
1879.....	do.....	41,988,000	3,623,000	45,611,000	69,399,000	23,788,000
1880.....	do.....	52,487,000	3,010,000	55,497,000	78,588,000	23,091,000
1881.....	do.....	48,802,000	2,850,000	51,652,000	75,219,000	23,561,000
1882.....	End of June.....	44,202,000	3,199,000	47,401,000	71,752,000	24,351,000
	End of December.....	48,214,000	2,924,000	51,138,000	76,213,000	25,075,000
1883.....	End of June.....	48,058,000	3,079,000	51,137,000	75,531,000	24,397,000
	End of December.....	48,737,000	2,784,000	51,521,000	75,566,000	24,015,000
1884.....	End of June.....	46,370,000	3,078,000	49,448,000	74,915,000	25,467,000
	End of December.....	46,509,000	3,090,000	49,599,000	72,648,000	23,089,000
1885.....	End of June.....	43,514,000	3,479,000	46,993,000	72,058,000	25,065,000
	End of December.....	46,264,000	3,385,000	49,649,000	73,482,000	22,533,000

COIN AND BULLION HELD AND NOTES ISSUED BY THE TREASURY
AND THE NATIONAL BANKS OF THE UNITED STATES.*

1.—The Treasury.

Years.	Date of report.	Gold, coined and uncoined.	Standard silver dollars.	Other silver coins and silver bars.	Totalsilver.	Per cent. of silver to total coin and bullion.	Legal-tender notes June 30.	Price of 100 dollars gold on Jan. 1 in notes.
1876...	October 2.....	\$55,423,069	.....	\$8,029,367	\$6,029,367	9.8	869,772,284	\$112.75
1877...	October 1.....	107,039,529	.....	7,425,454	7,425,454	6.5	859,764,332	107.00
1878...	October 1.....	136,036,302	\$12,155,205	15,777,937	27,933,142	17.0	846,681,016	102.82
1879...	January 1.....	112,703,342	17,249,740	15,169,611	32,419,351	22.3	846,681,016	100.00
1880...	November 1...	133,679,349	47,156,588	30,820,561	77,977,149	36.8	846,681,016	100.00
1881...	November 1...	167,781,909	66,576,378	29,409,262	95,985,640	36.4	846,681,016	100.00
1882...	November 1...	148,485,473	92,414,077	30,761,985	123,176,062	45.4	846,681,016	100.00
1883...	November 1...	157,353,760	116,036,450	31,648,789	147,685,239	48.4	846,681,016	100.00
1884...	November 1...	134,670,790	142,926,725	33,992,254	176,918,770	56.8	846,681,016	100.00
1885...	November 1...	142,338,589	163,817,342	26,806,072	190,623,414	57.3	846,681,016	100.00

* In the statements of the coin holdings of the Treasury, gold for which gold certificates are outstanding is not included. This holding of gold amounted, on November 1, 1882, to \$6,962,280; on November 1, 1883, to \$48,869,940; on November 1, 1884, to \$85,801,190; on November 1, 1885, to \$106,465,420. On the other hand, gold certificates held by the national banks are counted as part of their coin reserve. A provisional report of the Director of the Mint of date August 19, 1886, gives the coin holdings of the Treasury, the national banks, and other banks, as follows:

	Gold.	Silver.
In Treasury.....	\$231,915,699	\$213,625,810
In national banks.....	104,530,587	9,670,567
In other banks and general circulation.....	254,259,840	88,953,969
Total.....	590,706,126	312,250,346

2.—*State and National Banks, separately and combined with the Treasury.*

The banking system of the United States underwent a number of different phases up to the establishment of the national banking system in 1863. Until the discovery of the rich gold fields in California, and the subsequent discovery of the silver mines of Nevada, the coin holdings of the banks were comparatively small; and during the period 1863-'78, when inconvertible paper money was in circulation, the coin holdings of the banks were limited to the quantities needed for carrying on the few transactions made in that metal. The following summary statement gives some indications as to the state of things in earlier times:

	Coin.	Notes.
1841 in 784 State banks	\$34, 813, 958	\$107, 290, 214
1851 in 870 State banks	48, 671, 048	155, 165, 251
1861 in 1,601 State banks	87, 674, 507	202, 005, 767
1866 in 1,644 national banks	9, 226, 832	280, 233, 818
1871 in 1,767 national banks	13, 252, 968	315, 519, 117

Coin in Treasury:

1841	\$28, 685, 111
1851	40, 158, 353
1861	30, 963, 858
1866	105, 301, 656
1871	138, 589, 176

Years.	Date of bank report.	National banks.			Banks and Treasury together.		
		Coin.		Notes.	Coin and bullion.		Notes.
		Gold.	Silver.		Gold.	Silver.	
1876	October 2 ..	\$21, 400, 000		\$292, 200, 000	\$2, 000, 000		\$651, 000, 000
1877	October 1 ...	22, 700, 000		291, 100, 000	136, 300, 000		650, 800, 000
1878	October 1 ...	30, 700, 000		301, 000, 000	194, 700, 000		648, 600, 000
1879	July 1	\$35, 039, 201	\$6, 460, 537	323, 791, 674	\$158, 680, 355	\$38, 879, 808	670, 472, 690
1880	November 1 ..	102, 851, 032	6, 495, 477	343, 834, 107	253, 632, 511	81, 472, 628	690, 515, 123
1881	November 1 ..	107, 222, 169	7, 112, 567	360, 344, 250	291, 905, 569	103, 008, 207	707, 025, 266
1882	November 1 ..	94, 127, 324	8, 234, 730	362, 727, 747	260, 455, 297	131, 411, 701	709, 498, 763
1883	November 1 ..	97, 570, 057	10, 217, 926	352, 013, 787	273, 179, 117	157, 933, 165	698, 694, 803
1884	November 1 ..	117, 185, 407	8, 092, 557	333, 550, 813	277, 784, 954	185, 012, 536	680, 240, 829
1885	November 1 ..	161, 657, 121	9, 120, 202	315, 847, 108	335, 251, 499	199, 744, 216	662, 528, 184

Summary of holdings of gold by important banks, etc., at the close of the years 1872-1885 (so far as information is at hand).

Banks and treasuries.	1872.	1873.	1874.	1875.	1876.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
Bank of England and Scotch and Irish banks of issue.....	622,012,000	505,442,000	581,932,000	506,241,000	731,093,000
Australian banks.....	158,098,000	158,098,000	166,514,000	172,594,000	192,107,000
Bank of the Netherlands.....	47,544,000	67,953,000	94,096,000	117,726,000	100,239,000
Bank of Belgium.....	30,303,000	30,245,000	46,755,000	62,324,000	63,232,000
Bank of France.....	528,900,000	489,040,000	800,680,900	939,448,000	1,234,320,000
Italian banks of issue and Italian treasury.....	73,503,000	73,173,000	72,777,000	58,805,000	60,396,000
Austro-Hungarian Bank.....	138,808,000	141,055,000	145,483,000	135,708,000	140,444,000
Bank of Sweden, and other banks of issue in Sweden.....	7,490,000	16,780,000	17,873,000	22,015,000	21,462,000
Bank of Norway.....	inconsiderable.	23,821,000	21,894,000	16,024,000	24,772,000
National Bank of Denmark.....	17,105,000	32,122,000	37,530,000	43,188,000	50,591,000
Bank of Russia.....	597,182,000	618,207,000	639,172,000	643,459,000	801,183,000

Banks and treasuries.	1877.	1878.	1879.	1880.	1881.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
Bank of England and Scotch and Irish banks of issue.....	616,861,000	719,123,000	693,410,000	632,672,000	554,710,000
Australian banks.....	174,773,000	167,305,000	206,135,000	243,673,950	224,850,000
Bank of the Netherlands.....	85,868,000	75,878,000	124,823,000	98,665,000	30,889,000
Bank of Belgium.....	48,960,000	49,064,000	57,808,000	59,430,000	61,872,000
Bank of France.....	941,680,000	786,880,000	593,290,000	451,415,000	524,557,000
Italian banks of issue and Italian treasury.....	61,444,000	63,492,000	64,342,000	62,093,000	57,644,000
Austro-Hungarian Bank.....	134,752,000	134,749,000	117,264,000	130,021,000	137,451,000
Bank of Sweden, and other banks of issue in Sweden.....	12,710,000	16,500,000	22,566,000	23,280,000	22,109,000
Bank of Norway.....	16,351,000	14,572,000	19,899,000	29,046,000	23,784,000
National Bank of Denmark.....	37,979,000	42,378,000	47,237,000	59,048,000	54,902,000
Bank of Russia.....	399,436,000	443,239,000	483,316,000	545,077,000	545,098,000
Treasury and banks of issue in United States.....			606,457,000	1,065,297,000	1,238,803,000

Banks and treasuries.	1882.	1883.	1884.	1885.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
Bank of England and Scotch and Irish banks of issue.....	575,598,000	593,017,000	567,579,000	564,824,000
Australian banks.....	215,761,000	210,712,000	283,668,000	261,560,000
Bank of the Netherlands.....	8,994,000	39,962,000	46,150,000	81,437,000
Bank of Belgium.....	57,508,000	57,508,000	52,740,000	55,600,000
Bank of France.....	771,685,000	760,443,000	801,135,000	925,932,000
Swiss banks of issue.....	20,558,000	31,521,000	37,503,000	39,830,000
Italian banks of issue and Italian treasury.....	61,759,000	488,844,000	493,028,000	596,900,000
Austro-Hungarian Bank.....	158,345,000	155,364,000	157,644,000	138,145,000
Bank of Sweden, and other banks of issue in Sweden.....	23,370,000	23,291,000	24,091,000	24,592,000
Bank of Norway.....	25,200,000	25,885,000	26,126,000	21,834,000
National Bank of Denmark.....	54,241,000	54,628,000	52,323,000	52,047,000
Bank of Russia.....	545,102,000	545,102,000	545,108,000	545,107,000
Treasury and banks of issue in United States.....	1,098,912,000	1,147,853,000	1,166,697,000	1,408,056,000

In this table we have included only positive statements, such as reached us in direct reports or letters from official sources. Where we had no statements for the close of a year, we have inserted the statement for the date nearest the close; as, for instance, in the case of the United States.

If we now make a cautious estimate of the coin holdings of banks not included in the preceding table, we can present the following summary statement of the probable available holdings of gold in all the

reservoirs of civilized countries at the close of each year from 1877 to 1885:

Years.	Marks.	Kilograms fine.
1877.....	2,890,000,000	1,025,800
1878.....	2,850,000,000	1,021,600
1879.....	3,500,000,000	1,254,000
1880.....	3,790,000,000	1,358,500
1881.....	3,900,000,000	1,397,800
1882.....	4,070,000,000	1,458,100
1883.....	4,600,000,000	1,648,800
1884.....	4,680,000,000	1,677,400
1885.....	5,040,000,000	1,806,500

For the gold holdings of the Imperial Bank of Germany we have made estimates based on the data mentioned above. In regard to the banks of Spain, Portugal, Roumania, Greece, Canada, Cape Colony, etc., for which we have statements for occasional years, we have completed the figures as well as might be. It must therefore be admitted that the totals given present by no means correct figures. On the other hand, it must be borne in mind that the mistakes can have but a slight effect on the totals.

We give these totals with all possible qualification, yet we are convinced that they do not vary greatly from the facts. It is hardly necessary to say anything as to the importance of continuous statements of this kind.

2. CIRCULATION AND SUPPLY OF GOLD AND SILVER COINS OVER AND ABOVE THE HOLDINGS OF BANKS, AND THE PROBABLE TOTAL MONETARY SUPPLY OF THE PRECIOUS METALS.

We have already seen that in modern times a very considerable part of the coin of civilized countries accumulates in the banks or public treasuries, which issue bank notes or paper money, or open a credit to depositors. The greater is the use of such substitutes for coin, the less will be the amount of coin actually in circulation. The denominations in which coins are struck have much influence on the extent of this substitution; for the greater the range between the different denominations, the less can actual coin be dispensed with.

To get some conception of the total monetary supply of a country we must resort, not only to the statements of the coin-holding banks, but also to estimates of the coin in the hands of the community. It need not be said that such estimates are difficult to make and uncertain in their results, especially where there has not been within a comparatively recent period a recoinage, and substitution of new for old coins. Notwithstanding the difficulty and uncertainty of the task, it has been attempted from time to time on various methods. It would carry us too far to discuss the methods by which the problem has been approached, and we will give without further ado those estimates of the different countries which upon the whole seem to us the most trustworthy. We must, however, acknowledge the services of the Directors of the Mint of the United States, and of Mr. Ottomar Haupt, who for a number of years have given great attention and much labor to this problem. Special credit belongs to the *Histoire Monétaire de Notre Temps* of the latter gentleman, published in April of the present year. The various investigations have yielded results which usually agree, and such agreement warrants a certain degree of confidence that the statements which are to follow come as near to the facts as is necessary for our purpose.

For brevity's sake we do not give separately the supply of coins in the hands of the community, but give the total coin holdings of the banks and of the community. If it is desired to ascertain the coin in circulation over and above that held by the banks, this can readily be done by subtracting from the totals the amounts already given for the various banks and treasuries.

England.—A communication made by the master of the mint, Mr. Freemantle, in answer to an inquiry by the Government of the United

States, gives the following estimates of the coin in use in Great Britain and Ireland at the close of 1884 :

	Amount.	Equivalent in German marks.
Gold in the banks and in circulation.....	£123,309,000	2,466,200,000
Silver in the banks and in circulation.....	19,877,000	397,500,000
Notes of Bank of England and other banks.....	40,924,713	818,500,000

Mr. Haupt estimates the money in use in England at the close of 1885 as follows:

	Amount.	Per head of population.	
		In English currency.	In German currency.
		£ s. d.	Marks.
Gold in the banks.....	£38,000,000	} 3 0 0	60.00
Gold in circulation.....	75,000,000		
Silver coin.....	21,000,000	12 0	12.00
Copper coin.....	1,000,000	10	.80
Uncovered notes.....	12,000,000	6 7	6.50
Total.....	146,200,000		

This latter estimate, which agrees in the main with those published by us at earlier dates, is probably close to the truth. Variations of several percents per year, above or below the calculated amounts, are inevitable in a country whose international trade is as large as that of England, especially in consequence of the great movement of the precious metals to and from the United States and the periodic flow of silver to and from the colonies. But such changes are of no permanent importance. A factor of essential importance is the statutory provision that no note under £5 shall be issued in England. In Scotland and in Ireland, where £1 notes circulate, the use of sovereigns, as is well known, is very limited. Should the issue of £1 notes be permitted in England—and this has been proposed in Parliament, though as yet peremptorily rejected—a great increase would undoubtedly take place in the use of notes by the community, and the supply of gold in England would diminish appreciably; unless, indeed, it were enacted at the same time that the whole or the greater part of such notes should be covered by gold in the hands of the Bank of England.

For the Australian colonies we may estimate the monetary supply of gold at about £22,000,000 and that of subsidiary silver at about £1,300,000.

The supply of coin in the British possessions, outside of India, Australasia, and Mauritius, is probably above rather than below £12,000,000 of gold and £2,000,000 of silver.

The Netherlands.—The “Algemeen Verslag van het muntcolleg over 1885,” gives the following statement of the coin probably in use:

	Florins.
Gold coins, 10-florin pieces (74,974,860 florins have been coined).....	47,247,550
Legal-tender silver.....	150,511,458
Subsidiary silver.....	7,703,419
Copper coins.....	1,749,000

Mr. Haupt makes the following estimate for the Netherlands and their colonies:

	Florins.
Silver coins:	
In the bank.....	96,000,000
In circulation at home	55,000,000
In circulation in colonies.....	190,000,000
Gold coins and bars in the bank	48,000,000
Gold coins:	
In circulation at home	15,000,000
In circulation in the colonies	3,000,000
Subsidiary coin:	
At home	9,000,000
In the colonies.....	18,000,000
Government paper money	10,000,000
Uncovered notes	50,000,000
Total.....	494,000,000

Per head of population there were (at home) 15.75 florins gold, 37.75 florins legal-tender silver, and 15 florins uncovered notes and Government paper.

Latin Union.—The states which form the so-called Latin Union—France, Belgium, Italy, Switzerland, and Greece—must be considered, during the continuance of the Union, as a monetary unit; since the treaties provide that not only the gold coins, but also the silver 5-franc pieces of each country, shall be accepted in all payments to every country. They therefore circulate indiscriminately in the community at large. The total coinage in the countries of the monetary union was up to July, 1885, as follows, the figures being taken from the official reports at the seventh session of the Mint Conference of these countries in 1885:

	France.	Italy.	Belgium.	Switzerland.	Greece.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Gold coin:					
Before the treaty of 1865.	6,501,030,710	424,465,950	35,168,085		
After the treaty of 1865.	2,150,523,030	238,220,245	563,474,660	5,000,000	12,000,000
Total.....	8,651,553,740	662,686,195	598,642,745	5,000,000	12,000,000
Silver 5-franc pieces:					
Before the treaty of 1865.	4,435,139,860	184,621,950	145,180,490	2,500,000	
After the treaty of 1865.	625,496,380	359,581,360	850,497,720	7,978,250	15,462,865
Total	5,060,636,240	544,203,310	495,678,210	10,478,250	15,462,865
Silver subsidiary coins.....	237,073,624	170,000,000	33,000,000	18,000,000	10,800,000
Nickel, bronze, and copper coins	64,030,962	76,140,443	12,269,983	4,480,727	6,816,065

In these tables the statement of the Belgium coinage includes 14,646,025 francs of 25-franc and 10-franc pieces, which have been withdrawn by the Belgian Government; while the statement of Italian coinage includes 90,100,040 francs of 80-franc and 40-franc pieces, and 10,919,370 francs of 10-franc pieces, similarly withdrawn. On the other hand, the statement of coinage in France is exclusive of amounts withdrawn.

Setting aside subsidiary coins and legal-tender coins withdrawn by the Government, we still find that the coinage of the countries of the Latin Union up to date amounts to the gigantic sum of 9,814,217,245 francs in gold pieces, and 6,126,428,875 francs in silver 5-franc pieces. Now the question, a very important question, arises, how much of this enormous coinage is still on hand in the banks or in ordinary circulation; and how much of each kind of coin is in the different countries?

The question is one of the utmost importance for the future settlement of the Latin Union and the future mint policy of the countries composing it. In order to approach it, we must consider the countries singly.

France has for years possessed, and still possesses, the greatest supply of coin. Yet the estimates as to the extent of its supply vary greatly. Three times, in 1868, 1878, and 1885, the French Government has required about 20,000 public offices to make a statement on a given day of their total holding of gold and silver coin, and of its composition according to the country coined, and according to the date of the French coins.

The results were as follows:

Years.	Total	Gold coins.	Silver legal tender.	Gold.	Silver.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1868.....	29,707,280	29,028,140	679,120	97.72	2.28
1878.....	22,945,770	16,878,740	6,067,030	73.55	26.45
1885.....	17,108,815	11,860,430	5,247,885	69.33	30.67

These amounts were divided between French and foreign coins as follows:

Years.	French gold coins.		Foreign gold coins.		French legal-tender silver.		Foreign legal-tender silver.	
	<i>Francs.</i>	<i>Per cent.</i>	<i>Francs.</i>	<i>Per cent.</i>	<i>Francs.</i>	<i>Per cent.</i>	<i>Francs.</i>	<i>Per cent.</i>
1868.....	27,684,300	85.4	1,943,840	4.6	683,405	94.0	40,715	6.0
1878.....	14,705,450	87.1	2,178,290	12.9	4,124,945	68.0	1,942,085	32.0
1885.....	10,631,130	89.6	1,229,300	10.4	8,738,795	71.2	1,509,090	28.8

This indicates that the number of silver 5-franc pieces had increased considerably in 1878 as compared with 1868, but had fallen off since 1878. The same was the case in regard to foreign coins, both gold and silver. It will be noticed that the total quantity counted was smallest at the latest date, which may be accounted for by the fact that many offices, in order to avoid the trouble of sorting and counting large quantities of coin, exchanged coins on hand for bank-notes just before the day for which the count was ordered. Other mistakes were doubtless made in the conduct of these inquiries, but hardly exercised a great influence on the general results. M. de Foville believed that these inquiries would enable conclusions to be reached, on a method not uncommon in such matters, as to the total circulation of coin in France. In an essay read before the Statistical Society in Paris on October 21, 1885, he put the total supply of coin in France as follows: 4,000,000,000 francs in 20-franc pieces, 600,000,000 in 10-franc pieces, and 2,800,000,000 in silver 5-franc pieces, a total of 7,400,000,000 francs. Adding to these other gold coins—that is, 100, 50, 40, and 5-franc pieces, of which a total of 518,000,000 francs were originally coined—we get a total monetary supply of nearly eight milliards, a supply such as no other people possesses.

Mr. Haupt makes an estimate varying somewhat from this. He pays especial attention to the recorded import and export of the precious metals in France since 1815, and reaches the following results for the close of 1885:

	Amount.	Per head of population.
Gold:	<i>Francs.</i>	<i>Francs.</i>
In the bank.....	1,157,000,000	} 117.20
In circulation.....	3,300,000,000	
Silver:		
Legal tender in the bank.....	1,086,000,000	} 91.80
Legal tender in circulation.....	2,400,000,000	
Subsidiary coin.....	250,000,000	6.50
Copper subsidiary coin.....	60,000,000	1.60
Total.....	8,233,000,000	217.10
Uncovered notes.....	675,000,000	17.70

Our own opinion is that this second estimate puts the supply of gold and silver coins too high, and that, on the other hand, M. de Foville's estimate puts the supply of gold coins and of subsidiary coins too high. We should probably get closer to the truth by putting the French supply of coin, at the close of 1885, at about 4,200,000,000 francs in gold and gold coins, about 3,000,000,000 in silver 5 franc pieces, and 300,000,000 in subsidiary coin.

In regard to Belgium, it is well known that estimates differing widely were made at the conferences on the continuance of the Latin Union. They differed greatly as to the probable supply of the silver 5-franc pieces in Belgium, and as to the amount of silver 5 franc pieces of Belgian coinage within and without the country. On the basis of what was said at this conference we conclude that the supply of coin in Belgium at the close of 1885 is probably not far from the following:

	Amount.	Per head of population (about).
Gold:	<i>Francs.</i>	<i>Francs.</i>
In the bank.....	69,500,000	} 66
In circulation.....	310,500,000	
Silver:		
In the bank.....	32,700,000	} 43
In circulation.....	217,300,000	
Subsidiary coin, silver and copper.....	48,000,000	8
Uncovered notes.....	265,000,000	46

In regard to note circulation, it should be remembered that bills of exchange on foreign countries to the amount of from 70,000,000 to 80,000,000 francs, convertible into gold at any moment, are constantly held by the National Bank for the redemption of notes.

The resumption of specie payments in Italy has led in recent years to considerable changes in its coin circulation; and, indeed, the period of transition is not yet over. This explains the great differences between the various estimates made from time to time. Before the coin loan of 644,000,000 lire in 1881, it was estimated that the coin supply of Italy amounted to about 209,000,000 lire gold, 171,000,000 lire legal-tender silver, and 64,000,000 lire subsidiary silver coin.

In a commission report of June 3, 1835, Representative Simonelli estimated the monetary supply of the precious metals in Italy at that time as follows :

	Gold.	Silver legal tender.	Silver subsidiary coin.
	<i>Lira.</i>	<i>Lira.</i>	<i>Lira.</i>
In public offices	224,400,000	5,900,000	20,100,000
In banks	280,800,000	33,100,000	14,700,000
In private hands	60,000,000	50,000,000	129,200,000
Total	565,200,000	89,000,000	170,000,000

For the close of 1885 the best informed Italian statisticians made the following estimates:

	<i>Lira.</i>
Gold:	
In treasury	219,000,000
In banks	280,000,000
In circulation	75,000,000
Silver:	
Legal tender in treasury	80,000,000
Legal tender in banks	44,000,000
Legal tender in circulation	50,000,000
Subsidiary coin	171,000,000
Copper subsidiary coin	75,000,000
Total coin	994,000,000
Government paper money	238,000,000
Uncovered notes	612,000,000

Included in this table are 18,000,000 lire of old and foreign gold coins, and 74,000,000 lire of old silver coins which had been withdrawn.

Per head of population there were at the close of 1885 18.50 lire gold, 3.30 lire legal-tender silver, and 5.70 lire of subsidiary silver coin.

Mr. Ferraris put the monetary supply of the precious metals in Italy at the end of June, 1885, at the following figures :

	Amount.	Per head (about).
	<i>Francs.</i>	<i>Marks.</i>
Gold, at most	600,000,000	17
Five-franc pieces	110,000,000	3
Silver subsidiary coins	170,000,000	5
Copper coins	78,000,000	
Bourbon piasters, etc	27,000,000	

In regard to Switzerland, also, estimates vary greatly, especially in the matter of silver 5-franc pieces. Former estimates were apt to put the supply of this sort of coin in Switzerland at no more than 40,000,000 francs, while later estimates put it as high as 150,000,000 francs. These estimates must have been in the mind of the Swiss delegate to the Paris conference of 1885, who said, at the eleventh session of the conference, that inquiries made in August, 1885, indicated that nearly half (49.5 per cent.) of the 5-franc pieces circulating in Switzerland consisted of Italian pieces, and that this, on a total circulation of at least 100,000,000 francs, would indicate that the Italian pieces amounted to 50,000,000 francs.

If we include the coin holdings of the Swiss banks of issue, which, as stated above, amounted at the close of 1885 to 49,163,000 francs of gold and 20,438,000 francs of silver, we believe that the probable monetary

supply of Switzerland may be cautiously stated for the close of 1885 as follows:

	Amount.	Per head (about).
	<i>Francs.</i>	<i>Francs.</i>
Gold.....	90,000,000	31.0
Legal-tender silver.....	70,000,000	24.1
Subsidiary coin.....	20,000,000	6.9
Notes not covered by coin.....	54,510,000	18.8

Austro-Hungary.—So far as Austro-Hungary is concerned, we need add no sum of importance to the coin holdings of the Austro-Hungarian bank, which were, at the close of 1885, 69,080,000 florins of gold and 129,720,000 florins of silver. The circulation of irredeemable paper money since 1848 and the discontinuance of the coinage of silver, which had been maintained for a number of years, have driven abroad all but the subsidiary coins. We probably get close to the truth by putting the total monetary supply at the close of 1885 at about 80,000,000 florins of gold and about 150,000,000 florins of silver, there being at the same time 48,000,000 florins of subsidiary coin, 165,000,000 florins of bank-notes, and 338,000,000 florins of Government paper money.

Germany.—An estimate for the year 1870, whose correctness has not been doubted, and which of course does not include Alsace-Lorraine, puts the monetary supply as follows:

	Amount.	Per head (about).
	<i>Marks.</i>	<i>Marks.</i>
Domestic gold coins.....about..	91,000,000	.....
Legal-tender silver.....	1,500,000,000	.....
Subsidiary coins.....	85,000,000	.....
Foreign coins.....	40,000,000	.....
Hamburg bank money.....	36,000,000	.....
Total.....	1,752,000,000	45
Paper money of various states.....	184,000,000	} 14
Uncovered notes.....	850,000,000	
All told.....	2,295,000,000	50

By the close of 1880 all older German coins, barring a remnant of thaler pieces, had been withdrawn from circulation and either recoined or melted into bullion. There were withdrawn of old silver coins 1,080,486,138 marks, of which 530,334,687 marks were in thaler pieces. From the silver obtained by melting down these coins there were taken, up to the close of 1885, 222,245,742 kilograms fine for new imperial silver coins, and 3,552,448 kilograms were sold. The remainder (94,468 kilograms at the close of 1884) is still in the Government's possession.

The total coinage of the German Empire, exclusive of coins withdrawn in the meanwhile, has been, up to the close of 1885, 1,928,890,830 marks in gold coins, 444,491,484 marks in silver coins, and 44,842,462 marks in nickel and copper coins.

The new silver coins and the other subsidiary coins struck since 1873, barring an uncoined portion of 20-pfennig pieces and an insignificant loss by accident, are still in circulation; but, on the other hand, considerable sums of the gold coins have disappeared from circulation. There have disappeared, in the first place, 120,000,000 marks in double crowns, which are absorbed in the war treasury at Spaudan. This sum

is certain; but the quantity melted down for use in the arts or exported to foreign countries is quite uncertain. A part of the quantity exported, especially that which is held by foreign banks in its original form, is not permanently withdrawn from circulation in Germany, since a favorable rate of exchange will doubtless bring it back to Germany sooner or later. As the rate of exchange in recent years has been generally in favor of Germany, it is probable that the only coin which has been remelted at foreign mints or has been used in the arts constitutes a loss to Germany's possible supply of gold. Needless to say, we must add to this supply the gold held by the Imperial Bank in bars and in foreign coins.

Mr. Haupt ascertained that at the close of 1885 there had been undoubtedly recoined at foreign mints German gold coins to the amount of 161,400,000 marks. He estimates that about 110,000,000 marks of these coins had been melted for use in the arts. This is a mere guess; but, as we know no reason for believing the amount to be larger or smaller, we accept it.

The sum of gold bars and of foreign gold coin held by the Imperial Bank at the close of 1885 was, reckoning the pound fine at 1,392 marks, 193,706,605 marks.

We have already published the statement which follows, of the supply of thaler pieces. We still consider that statement to be proximately correct; and we reproduce it, since it is connected with a point of great practical importance for Germany.

At the beginning of the reform of the German coinage it was calculated that there could have been in circulation 367,746,038 thaler pieces, that is, 1,103,238,114 marks. When the 1 and 2 florin pieces were entirely withdrawn, it was found that about 21 per cent. of the original coinage had disappeared. If we assume the same proportion for the thaler pieces, there would have been present in the year 1870 about 854,000,000 marks of those coins. Up to May, 1879, when the withdrawal of thalers ceased, there had been drawn in 530,334,687 marks; so that there are probably still in circulation 323,665,000 marks. All the Austrian thalers still in existence have made their way to Germany. Of these, 31,060,321 pieces had been coined, which would leave in circulation, making the same deduction that was made before, 73,600,000 marks, which should be added as part of the existing supply. The total probable supply in Germany of thalers which are still full legal tender may therefore be put at nearly 400,000,000 marks. The supply is generally put at 450,000,000 marks, in order to prevent any charge of intentionally understating it.

Government notes were originally issued to the amount of 174,120,130 marks. The quantity has decreased in accordance with the provisions of law, and amounted in March, 1886, to 137,500,000 marks.

We may therefore make the following statement of the extent and composition of the money in circulation and of the precious metals in Germany at the close of 1885:

	Marks.
Imperial gold coins (exclusive of the Spandau hoard)	1,550,000,000
Gold in bars and foreign coins at the Imperial Bank	194,000,000
Thalers, German and Austrian, at most	450,000,000
Imperial silver coins	442,000,000
Nickel and copper coins	40,000,000
Total coin and bullion	2,676,000,000
Notes of the Empire (<i>Reichsbankenscheine</i>)	138,000,000
Uncovered notes	361,000,000
All told	3,175,000,000

The deposits in the banks, which are to be considered equivalent to a note circulation, would give an addition of 300,000,000 marks to this total.

Per head of population Germany possessed, for a total population of 46,840,000, 37.2 marks of gold, 10 marks of legal tender silver and subsidiary coin, 10.7 marks of credit money—that is, a circulating medium of all kinds per head of population of about 68 marks (the deposits not being reckoned), as against 53.5 marks in the year 1870.

Scandinavian countries.—Since the treaty of 1873 Sweden, Norway, and Denmark have a close monetary union. The coins of each country being legal tender in the other countries, they are to be considered as one country, so far as the supply and circulation of money are concerned.

As appears from the tables printed above, the three countries coined from 1873 to the close of 1885, 94,462,925 crowns of gold and 39,438,572 crowns of silver. This gives for a population of 8,400,000, 11.2 crowns of gold per head and 4.7 crowns of silver per head. The figure for silver may be considered accurate, since the silver is a subsidiary coin whose nominal value exceeds its intrinsic value by more than 30 per cent., and which is therefore neither melted down nor exported. The case is different with the gold coins, in regard to which we know from the reports of foreign mints and from other sources that considerable sums have been exported and melted. On the other hand, the Scandinavian public banks hold large sums of gold in bars and in foreign coin as a reserve for their note circulation. Moreover, the Bank of Norway, over and above its domestic holdings of gold, has a not inconsiderable supply of gold on deposit at foreign banks and immediately available. The money in circulation in the three countries at the close of 1885 may be estimated as follows:

	Denmark.	Sweden.	Norway.
Gold:	<i>Crowns.</i>	<i>Crowns.</i>	<i>Crowns.</i>
In the banks.....	46,280,000	21,630,000	19,410,000
In circulation.....	3,000,000	11,000,000	1,000,000
Silver coins.....	18,500,000	15,500,000	5,000,000
Copper coins.....	700,000	900,000	300,000
Uncovered notes.....	23,830,000	64,140,000	17,740,000
Total.....	92,290,000	113,170,000	43,450,000

If we consider the gold which is kept abroad a part of the reserve for the Norwegian bank notes the amount of uncovered notes becomes no more than 8,472,000 crowns.

These estimates differ from those last presented by Mr. Haupt. We put the amount of gold coins in active circulation in Sweden and Norway at a much lower figure than that gentleman. Our conclusion rests on numerous inquiries made in these countries. The experience of the Scandinavians proves clearly that where a firmly organized banking system has possessed complete confidence for a considerable period of time, and where the population has become used to small bank notes, these latter form the chief circulating medium, while gold coins, notwithstanding the gold standard, make their appearance to a very slight extent in general trade, and accumulate in the banks.

Russia.—Here the existence of irredeemable paper money leads us to make our estimate of the monetary supply in much the same way as in Austro-Hungary. The stated quantity held by the Bank of Russia and the quantity of subsidiary coin are to be supplemented by some small amount

which must be guessed. Although the irredeemable paper money has existed for many years and has driven all coin of full weight out of circulation, a larger or smaller part of the coin formerly in circulation is still held by the people. This conclusion is based on the common experience that when the resumption of specie payment takes place in a civilized country, a great number of coins make their appearance without anyone's knowing exactly whence they come. Let us add to the supply of gold held by the Government bank as given above, 10,000,000 rubles of gold coin and about the same amount of silver legal tender coins; let us add also 80,000,000 or 90,000,000 rubles in silver and copper subsidiary coin; and we get (apart from the so-called latent reserve) a statement which is not too low of the present supply of coin in Russia. The paper money issued up to the close of 1885 amounted to about 907,000,000 rubles. On the other hand, 244,000,000 rubles in gold were held by the banks.

The balance sheet of the Bank of Russia for July 1, 1886, stated 716,433,349 rubles of credit notes to be in circulation, while the coin reserve was 171,472,495 rubles, of which 170,346,091 rubles were gold. In addition the bank held coin for safe keeping to the amount of 13,598,729 rubles. The premium on the paper is subject to great fluctuations, but experience has shown that it does not depend upon changes in the total amount of paper issued.

We have received the following estimate of the coin in circulation in Finland at the close of 1885 :

	Finland marks.	
Gold coins:		
In the bank	about..	17,250,000
In circulation	do....	4,750,000
Silver coins:		
In the bank	do....	5,500,000
In circulation	do....	6,500,000
Copper coins	do....	900,000

United States.—We have already stated, in the first division of the present part, the supply of coin in the Treasury and in the banks. It remains only to give the sums which are in the hands of the public at large, and, by adding them to the quantity in the Treasury and in the banks, to ascertain the total amount of money in use in that important country.

It was estimated that there were in the hands of the public :

	January 1, 1879.	November 1, 1882.	November 1, 1883.	November 1, 1884.	November 1, 1885.
Gold.....	\$119,629,771	\$286,900,967	\$308,791,137	\$307,826,918	\$251,476,288
Silver.....	67,693,895	77,332,723	84,768,767	90,722,903	107,914,611
Notes.....	459,097,051	548,828,288	523,124,121	492,735,882	470,401,878
Total.....	646,420,717	913,061,978	916,684,025	891,285,633	829,792,777

Add the amounts in the Treasury and banks, and we get as the total supply and circulation of money :

	January 1, 1879.	November 1, 1882.	November 1, 1883.	November 1, 1884.	November 1, 1885.
Gold.....	\$278,310,126	\$547,356,262	\$581,970,254	\$585,611,872	\$586,727,787
Silver.....	106,573,803	208,744,424	242,701,932	275,735,439	307,658,827
Notes.....	670,472,690	709,408,763	698,694,803	680,240,829	662,528,184
Total.....	6,055,356,619	1,465,500,449	1,523,366,989	1,541,588,140	1,556,914,798

As this table shows, the supply of precious metals in the United States has increased in the space of not quite seven years, from the 1st of January, 1879, to the 1st of November, 1885, by \$308,418,000 of gold and by \$201,085,000 of silver.

Attempts have occasionally been made to get statements of the money in circulation in countries other than those mentioned above. But we present none of them, considering them too uncertain. We content ourselves with presenting a collective statement. Some such statement has to be made, if we wish to get an expression in figures on the general condition of the medium of exchange and the probable future of the gold and silver standards. It is perfectly true that no statistics are better than false statistics; but we have here to deal, not with false statistics, but with estimates and compilations by which, though with wide limits of error, we try to get near the truth, and which are no more open to the charge of overstatement than to that of understatement. What we said before as to the estimates of the production of the precious metals, holds good for these estimates also. If good reasons are presented for thinking the balance of probability to be different, those who prepared the tables are more than willing to undertake a modification. Nothing lies further from their intention than to uphold preconceived or prejudiced estimates.

We have said that we will give a collective estimate for all the countries not especially mentioned above. This proceeding has the advantage that too high an estimate for one of these countries is likely to be offset by too low an estimate in another; and that we dispense with much empty guess-work. In any case these supplementary amounts are insignificant in comparison with the totals arrived at.

We therefore conclude the present part with a statement giving the probable monetary supply of the precious metals in civilized countries at the close of the year 1885. The legal-tender and subsidiary silver are treated as one. But the value of the silver coins we reckon on a plan different from that followed elsewhere in this work. We calculate, not their intrinsic value, but that assigned to them by law, that is, the value which is given in the bank statements, and which obtains in ordinary circulation.

Estimate of the total monetary supply of the precious metals at the close of 1885.

Countries.	Gold.		Silver.		Gold and silver.	
	Marks.	Per cent.	Marks.	Per cent.	Marks.	Per cent.
Great Britain.....	2,220,000,000	16.61	432,000,000	5.51	2,652,000,000	12.50
British colonies (without India).....	680,000,000	5.09	66,000,000	0.84	746,000,000	3.52
Netherlands.....	80,000,000	0.60	269,000,000	3.43	349,000,000	1.65
France, Italy, Belgium, and Switzerland.....	4,195,000,000	31.89	3,200,000,000	40.80	7,395,000,000	34.87
Austro-Hungary.....	160,000,000	1.20	370,000,000	4.72	530,000,000	2.50
Germany.....	1,744,000,000	13.05	892,000,000	11.37	2,636,000,000	12.43
Scandinavian countries.....	115,000,000	0.86	42,000,000	0.54	157,000,000	0.74
Russia.....	770,000,000	5.76	280,000,000	3.57	1,050,000,000	4.95
United States.....	2,464,000,000	18.44	1,292,000,000	16.47	3,756,000,000	17.71
Other countries in Europe and America....	936,000,000	7.00	1,000,000,000	12.75	1,936,000,000	9.13
Total.....	18,864,000,000	100.00	7,842,000,000	100.00	21,207,000,000	100.00

PART VI.

THE RATES OF DISCOUNT AND OF EXCHANGE.

THE RATES OF DISCOUNT AND OF EXCHANGE.

As our materials are meant mainly for the use of men of business, a detailed discussion of the nature of the rate of discount and the rate of exchange, and of the meaning of their fluctuations, may be dispensed with. The tables themselves give sufficient information.

1. DISCOUNT.

The rate of discount at important points from 1851 to 1885.

Year.	Bank of England.			Bank of France.			Bank of Germany (or Prussian Bank).			Open rate at Ham- burg.			Vienna (bills at).		
	Lowest.	Highest.	Average.*	Lowest.	Highest.	Average.	Lowest.	Highest.	Average.	Lowest.	Highest.	Average.	Lowest.	Highest.	Average.
1851..	3	3	3.00	4	4	4.00	4	4	4.00	1½	5	2.75	4	4	4.00
1852..	2½	2½	2.08	3	4	3.17	4	4	4.00	2½	6	3.25	4	4	4.00
1853..	2½	5	3.50	3	4	3.22	4	4	4.25	1½	6	3.50	4	4	4.00
1854..	5	5	5.12	4	5	4.80	4	5	4.98	1½	6½	2.50	4	4	4.00
1855..	3½	6	4.75	4	6	4.44	4	4	4.10	1½	6½	3.75	4	4	4.00
1856..	4½	6½	5.75	5	6	5.51	5	6	4.94	4½	10	6.25	4	4	4.27
1857..	5	9½	6.75	6	9	6.15	5	7½	5.76	3½	8	6.50	5	5	5.00
1858..	2½	5	3.25	3	5	3.70	4	5	4.29	1	2½	1.75	5	5	5.00
1859..	3½	4	2.75	3	4	3.45	4	5	4.20	1½	5	2.00	5	5	5.00
1860..	2½	5	4.25	3	5	3.63	4	4	4.00	1	3	1.75	5½	5½	5.13
1861..	8	7½	5.25	4½	7	5.52	4	4	4.00	1½	4½	2.56	5½	5½	5.50
1862..	2	3	2.50	3	5	3.77	4	4	4.00	1½	4	3.00	5	5½	5.06
1863..	3½	7½	4.50	3	7	4.64	4	4	4.08	2	5½	3.19	5	5	5.07
1864..	6	9	7.50	4	8	6.50	4½	7	5.81	2½	6½	4.19	5	5	5.00
1865..	3½	7	4.75	3	5	3.72	4	7	4.96	1½	7	3.56	5	5	5.00
1866..	3½	10	7.00	3	5	3.67	4	9	6.21	3	8½	4.69	4	5	4.94
1867..	2	3½	2.50	2½	3	2.71	4	4	4.00	1½	4	2.12	4	4	4.00
1868..	2	3	2.25	2½	2½	2.50	4	4	4.00	1½	3½	2.12	4	4	4.00
1869..	2½	4½	3.25	2½	2½	2.50	4	5	4.24	2½	4½	3.87	4	5	4.34
1870..	2½	5	3.12	2½	6	3.99	4	5	4.90	2½	8	3.56	5	5	5.43
1871..	2	4½	2.87	5	6	5.71	4	5	4.16	2½	4½	3.06	5	6½	5.49
1872..	3	6½	4.12	5	6	5.15	4	5	4.29	2½	5½	3.44	5	6	5.66
1873..	8	8½	4.75	5	7	5.15	4	7	4.95	3	7	4.80	5	6	5.22
1874..	2½	6	3.75	4	4½	4.80	4	6	4.38	2½	5	3.53	4½	5	4.87
1875..	3	4½	3.25	4	4	4.40	4	6	4.71	2½	5½	4.03	4½	5	4.58
1876..	2	4½	2.62	3	4	3.40	3½	5	4.16	2	5½	3.25	4½	5	4.54
1877..	2	4½	2.87	2	3	2.28	4	5	4.42	2½	5	3.47	4½	4½	4.50
1878..	2	5½	3.75	2	3	2.18	4	5	4.34	2½	4½	3.49	4½	4½	4.50
1879..	2	4	2.37	2	3	2.58	3	4	3.70	1½	4	2.83	4	4½	4.17
1880..	2½	3	2.75	2½	3½	2.81	4	5½	4.24	1½	5½	3.18	4	4	4.00
1881..	2½	5	3.50	3½	5	3.84	4	5½	4.24	2½	5½	3.81	4	4	4.00
1882..	3	5½	4.12	3½	5	3.80	4	6	4.54	2½	5	3.98	4	4	4.20
1883..	3	4½	3.56	3	5	3.07	4	5	4.05	2½	5	3.22	4	5	4.11
1884..	2	5	2.95	3	3	3.00	4	4	4.00	2	4½	2.97	4	4	4.00
1885..	2	5	3.00	3	3	3.00	4	5	4.12	2	4½	2.88	4	4	4.00

*In this and the corresponding columns the average is for the year.

Average rate for periods of several years since 1851.

Periods.	Bank of England.	Bank of France.	Bank of Germany (or Prussian Bank).	Open rate at Ham- burg.	Vienna.
1851-'60.....	4.12	4.16	4.39	3.40	4.44
1861-'65.....	4.90	4.83	4.47	3.80	5.11
1866-'70.....	3.62	3.07	4.67	3.27	4.54
1871-'75.....	3.75	4.86	4.50	3.77	5.16
1876-'80.....	2.87	2.65	4.17	3.24	4.34
1881-'85.....	3.43	3.34	4.23	3.37	4.06

The highest and lowest rates of discount in the thirty-five years, from 1851 to 1885, were as follows:

	Highest.	Lowest.
	Per cent.	Per cent.
For the Bank of England.....	10	2
For the Bank of France.....	9	2
For the Bank of Prussia (or of Germany).....	9	3
Private rates at Hamburg.....	10	1
Private rates at Vienna.....	6½	4

In Paris, London, and Berlin the rate of discount at other banks and with private firms was generally somewhat lower.

As regards the number of changes which the rate of discount underwent in each year from 1851 to 1885 in London, Paris, Berlin, and Vienna, the following table gives information:

Year.	Bank of England.	Bank of France.	Bank of Prussia.	Vienna.	Year.	Bank of England.	Bank of France.	Bank of Germany (or of Prussia).	Vienna.
1851.....	None.	None.	None.	None.	1869.....	7	None.	1	1
1852.....	2	1	None.	None.	1870.....	10	4	5	1
1853.....	6	1	1	None.	1871.....	10	2	1	4
1854.....	2	2	1	None.	1872.....	14	1	1	2
1855.....	7	2	1	None.	1873.....	24	4	6	1
1856.....	8	2	4	1	1874.....	13	1	4	1
1857.....	9	8	7	None.	1875.....	12	None.	5	1
1858.....	6	4	5	None.	1876.....	5	1	6	1
1859.....	5	2	2	None.	1877.....	7	1	7	None.
1860.....	11	1	None.	1	1878.....	10	1	3	None.
1861.....	11	7	None.	None.	1879.....	5	2	6	1
1862.....	5	4	None.	1	1880.....	2	2	5	None.
1863.....	12	8	2	None.	1881.....	6	3	3	None.
1864.....	15	11	5	None.	1882.....	6	3	5	1
1865.....	16	6	5	None.	1883.....	6	1	1	2
1866.....	14	7	10	1	1884.....	7	None.	None.	None.
1867.....	3	1	None.	None.	1885.....	7	None.	3	None.
1868.....	2	None.	None.	None.					

Finally, we present a comparative statement of the monthly rate of discount at several important points for the two years 1869 and 1885. The figures are taken from the well-known annual Commercial History and Review of the London Economist:

Months.	London.		Paris.		Vienna.		Berlin.		Frankfort.	
	Bank.	Private.	Bank.	Private.	Bank.	Private.	Bank.	Private.	Bank.	Private.
1869.										
January	3	2½	2½	1½	4	4	4	2½	2½	1½
February	3	2½	2½	1½	4	4	4	2½	2½	1½
March	3	3	2½	1½	4	4	4	2½	2½	1½
April	4	3½	2½	1½	4	4	4	2½	2½	1½
May	4	3½	2½	1½	4	4	4	2½	2½	1½
June	4½	4½	2½	2	4	4	4	2½	2½	1½
July	3½	3½	2½	2½	4	4	4	3	3	3
August	3	2½	2½	2	4	4	4	3	3	3
September	2½	2½	2½	2½	5	5	4	3	3	3
October	2½	2½	2½	2½	5	7	4	3	3	3
November	3	3	2½	2½	5	5	5	4½	4	4
December	3	2½	2½	2½	5	5	5	4½	4	3½
Average	3.12	3.00	2.50	2.25	4.37	4.50	4.25	3.25	3.00	2.50
1885.										
January	5	4½	3	2½	4	4	4	3½	4	3½
February	4	3½	3	2½	4	3½	4	3½	4	3½
March	4	3½	3	2½	4	3½	4	3½	4	3½
April	3½	2½	3	2½	4	3½	5	3½	5	3½
May	3½	2½	3	2½	4	3½	4½	4	4½	4
June	2	1	3	2½	4	3½	4	2½	4	2½
July	2	1	3	2½	4	3½	4	2½	4	3
August	2	1	3	2½	4	2½	4	2½	4	2½
September	2	1½	3	2	4	3½	4	2½	4	2½
October	2	1½	3	2	4	3½	4	3	4	3
November	2	1½	3	2½	4	3½	4	2½	4	2½
December	3	2½	3	2½	4	3½	4	2½	4	2½
Average	2.84	2.04	3.00	2.40	4.00	3.48	4.13	2.91	4.13	2.98

Months.	Amsterdam.		Brussels.		Hamburg.		St. Petersburg.	
	Bank.	Private.	Bank.	Private.	Bank.	Private.	Bank.	Private.
1869.								
January	2½	2½	2½	2½	1½	1½	7	6½
February	2½	2½	2½	2½	1½	1½	7	6½
March	2½	2½	2½	2½	1½	1½	7	6½
April	2½	2½	2½	2½	1½	1½	7	6½
May	3	2½	2½	2½	1½	1½	7	6½
June	3½	3½	2½	2½	4½	7	7	7
July	3½	3½	2½	2½	4	6	6	6
August	3½	3½	2½	2½	2½	6	5	5
September	3½	3½	2½	2½	4	5	4	4
October	4	3½	2½	2½	4	5½	6	6
November	5	5	2½	2½	4	6	6	6
December	5	5	2½	2½	3½	6½	6	7
Average	3.50	3.50	2.50	2.50	2.75	6.37	6.12	
1885.								
January	3	2½	4	3½	4	3½	6	6
February	3	2½	4	3½	4	3	6	6
March	3	2½	3	2½	4	2½	6	6
April	3	3	3	2½	5	3½	6	6
May	3	2½	3	2½	4½	3½	6	6
June	2½	2½	3	2½	4	2½	6	6
July	2½	2½	3	2½	4	2½	6	6
August	2½	2	3	2½	4	2½	6	6
September	2½	2	3	2½	4	2½	6	6
October	2½	2½	3	2½	4	3	6	6
November	2½	2½	3	2½	4	2½	6	6
December	2½	2½	4	3½	4	2½	6	6
Average	2.71	2.39	3.26	2.90	4.13	2.82	6.00	6.00

2. EXCHANGE.

Rate of exchange on London, 1851-'85

Years.	At Berlin, three months.*			At Paris, three months. Francs per pound.†			At St. Petersburg, three months. Pence per ruble.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
1851.....	6.23	6.19½	6.20½	25.25	24.77½	24.90½	88½	87½	87.90
1852.....	6.25½	6.20½	6.23½	25.32½	24.90	25.15½	88½	87½	88.29
1853.....	6.22½	6.16½	6.19½	24.90	24.70	24.79½	88½	88	88.68
1854.....	6.17	6.13½	6.15½	24.82½	24.62½	24.71½	88½	88½	88.37
1855.....	6.20	6.14½	6.17½	24.92½	24.77½	24.84½	88½	88½	88.07
1856.....	6.22½	6.16½	6.20½	25.02½	24.80	24.91½	88½	87½	88.23
1857.....	6.19½	6.17½	6.18½	24.87½	24.70	24.80½	88½	88½	87.24
1858.....	6.21	6.18½	6.19½	25.00	24.82½	24.90½	88½	88½	85.98
1859.....	6.21	6.14	6.17½	24.95	24.82½	24.93½	88½	88½	85.24
1860.....	6.18	6.17½	6.17½	25.07½	24.82½	24.88½	88½	88½	85.68
1861.....	6.21½	6.18½	6.20	25.17	24.85	25.00½	85	83½	84.27
1862.....	6.22½	6.20½	6.21½	25.12½	24.92½	25.03½	85½	83½	84.68
1863.....	6.21½	6.18½	6.20½	25.20	24.85	24.97½	87½	85	86.61
1864.....	6.21½	6.18½	6.20½	24.92½	24.67½	24.79½	84½	80½	82.55
1865.....	6.24½	6.20½	6.22½	24.97½	24.77½	24.89½	81½	81½	81.43
1866.....	6.22½	6.17½	6.21	25.16	24.70	24.88½	82½	82½	82.73
1867.....	6.24½	6.20½	6.28½	25.21½	25.14	25.10½	83½	81½	82.51
1868.....	6.24½	6.22½	6.23½	25.21	25.14	25.16½	83½	82½	82.89
1869.....	6.24½	6.23½	6.23½	25.28	25.12½	25.16½	83½	82½	80.58
1870.....	6.24½	6.19	6.22½	25.20	25.12	25.18½	81	80½	82.73
1871.....	6.23½	6.19½	6.21½	26.10	25.25	25.65½	82½	81	82.00
1872.....	6.21½	6.20	6.21½	25.67½	25.22	25.46½	83	82½	82.73
1873.....	6.21½	6.19	6.20½	25.51	25.27½	25.64½	82½	82½	82.45
1874.....	6.23½	6.21½	6.22½	25.23	25.18	25.17½	83½	82½	83.25
1875.....	20.46	20.15	20.30½	25.26	25.08½	25.15½	83½	81½	83.73
1876.....	20.42	20.21	20.35½	25.24	25.08½	25.16	81½	80½	80.90
1877.....	20.45½	20.25½	20.35½	25.19	25.06½	25.11½	29½	28½	25.96
1878.....	20.31½	20.24	20.27½	25.29	25.08½	25.16½	26½	25½	24.40
1879.....	20.40	20.22½	20.32½	25.30	25.12½	25.21½	25½	23½	24.30
1880.....	20.39½	20.26	20.31½	25.35	25.12½	25.23½	25½	24½	25.03
1881.....	20.38	20.16	20.29½	25.31½	25.14½	25.24½	26	24½	25.19
1882.....	20.32½	20.15½	20.25½	25.27½	25.12	25.20½	24½	23½	24.16
1883.....	20.32½	20.25½	20.29½	25.32	25.17½	25.24	24½	23½	23.66
1884.....	20.42	20.22	20.31½	25.32½	25.14½	25.21½	25½	23½	24.31
1885.....	20.34½	20.22	20.29½	25.38½	25.23½	25.28½	25½	23½	24.16

* *Berlin*.—Until 1874 (inclusive) the figures mean so many thalers and silver groschen per pound sterling; after 1875 they mean marks per pound.

† *Paris*.—Since the year 1867 quotations are for sight-bills. From September, 1870, to May, 1871, no rates were published, in consequence of the Franco-German war.

Rate of exchange on London, 1851-'85—Continued.

Years.	At Vienna, threemonths. Florins per pound or 10 pounds.*			At New York, sixty days' sight.†		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
1851.....	13.40	11.32	12.14			
1852.....	12.29	10.45	11.63			
1853.....	11.19	10.38	10.63			
1854.....	14.00	11.12	12.31			
1855.....	12.28	10.51	11.62			
1856.....	10.26	10.02	10.10			
1857.....	10.34	10.07	10.13			
1858.....	10.22	9.51	10.05			
1859.....	143.00	104.10	122.29			
1860.....	144.00	126.00	132.50	110	104½	108.59
1861.....	153.40	137.35	141.78	110½	106	107.58
1862.....	138.80	114.80	128.28	147	111½	125.56
1863.....	120.75	110.60	113.50	187	140	160.29
1864.....	120.70	113.60	115.99	273	172	223.25
1865.....	113.65	103.80	109.00	225	151½	167.85
1866.....	130.70	101.70	120.33	166	136	151.82
1867.....	121.70	120.30	125.98	110½	108	108.37
1868.....	119.70	113.60	116.50	110½	108½	109.67
1869.....	126.90	121.10	123.75	110½	107½	109.01
1870.....	124.50	119.90	124.04	109½	108½	108.22
1871.....	125.10	115.90	121.42	110½	108½	109.44
1872.....	113.80	106.90	110.53	110	108½	109.10
1873.....	113.85	109.00	111.05	109½	106½	108.13
1874.....	112.75	109.25	111.01	4.88½	4.84	4.85½
1875.....	113.80	111.00	111.82	4.88	4.79	4.84
1876.....	127.45	114.30	121.35	4.88½	4.82	4.85½
1877.....	128.90	117.20	122.25	4.88	4.81	4.84
1878.....	122.80	114.70	117.89	4.87	4.80½	4.83½
1879.....	117.70	115.85	116.63	4.87½	4.80	4.83½
1880.....	119.15	117.20	117.84	4.86	4.78½	4.82½
1881.....	118.80	116.90	117.90½	4.83½	4.76	4.80½
1882.....	120.35	118.50	119.63	4.86½	4.70½	4.83½
1883.....	121.10	119.65	120.07	4.84½	4.81	4.82½
1884.....	123.30	121.30	121.98	4.87½	4.80	4.83½
1885.....	126.75	123.70	125.01	4.86½	4.83	4.84½

* *Vienna.*—Since the year 1859 the rate of exchange is quoted at so much per 10 pounds sterling. After 1881 the quotations are for sight-bills.

† *New York.*—Up to the close of 1873 the rate of exchange in New York on London was quoted with a premium based on the assumption that 4½ shillings were equivalent to \$1, that is, that 444 cents were equivalent to a sovereign. An act of Congress of March 3, 1873, abolished this obsolete valuation of sterling exchange, and it came to an end on January 2, 1874. Contracts based on it are null and void. In consequence, the rate of exchange on London is now calculated directly at so many dollars for the pound sterling, the basis being an assumption that the pound sterling equals \$4½ (*sic* in the original). When specie payments were suspended, at the beginning of the civil war in 1861, paper depreciated and a premium set in which reached 5 per cent. in January, 1862, amounted to between 1½ and 2½ per cent. in March, 1862, then rose suddenly, until in July, 1864, it reached its maximum of 185 per cent. Since the close of 1878 paper has been at par with gold.

There is no subject in statistics which admits of so exact treatment as the rate of exchange. The balance of payments in a country is indicated beyond doubt by the rates of exchange. If a country has larger payments to make abroad than it has to receive (taking into account all payments due at the time, so that it is necessary to consider not the excess of imports alone, the payments of interests alone, or any single obligation,) then the equilibrium must be established by a remittance of coin. But a remittance of coin will take place only if bills on foreign countries are dear. In consequence of the arbitrage transactions the various rates of exchange of any one place form a whole, and move together. It is unfortunate that these transactions, whose influence upon the international movement of money, and thereby upon the general commercial interests of the countries concerned, is so important and beneficial, are often misunderstood, and are fettered by taxes which are the result of a misconception of their nature and effect.

In former times the possible variation in the rate of exchange (speaking, of course, only of countries having a fixed gold standard) was much greater than it is now. At present the expense and the loss of time in making remittances of gold are reduced to a minimum. The gold point—that is to say, the point at which gold is likely to be shipped—is as follows for the important rates of exchange:

	Par.	Outflow of gold.	Inflow of gold.
Rate in—			
Berlin on London.....marks..	20.43	20.33	20.52
Paris on London.....francs..	25.225	25.125	25.325
Amsterdam on London.....florins..	12.11	12.02	12.17
New York on London.....dollars..	4.867	4.827	4.90
Paris on Berlin.....marks..	81.00	80.56	81.37

This table refers, of course, only to the rates on sight bills or bills falling due at very short dates. For other bills the date for which they are drawn and the rate of discount in the place on which they are drawn must of course be taken into account.

The average rates of exchange given in our tables have been calculated by taking the quotations at the end of each month in the year, and ascertaining from them the average of the year.

PART VII.

VARIATIONS IN GENERAL PRICES AND IN THE PURCHASING POWER OF GOLD.

VARIATIONS IN GENERAL PRICES AND IN THE PURCHASING POWER OF GOLD.

In order to judge of the present and future demand for money, and to solve the general problem of prices and of money, it must be remembered above all things that in modern times a great change has taken place in conditions of essential importance for that problem. The development of credit and of banking has revolutionized the conditions on which the use of money depends, as much as the development of railways and of steamships, the Suez Canal, and the telegraph, have revolutionized the business of transportation. Comparisons with the monetary experiences of former times still have an interest and a lesson for us; but they are apt to lead to wrong conclusions, because the conditions of the present time have become so entirely different. In ancient times and in the Middle Ages the actual supply of the precious metals was the most important factor in making prices, that is, the value of commodities in general expressed in money. Where barter took place money prices were not affected, and credit transactions played no important part. When the mines of Laurion caused considerable sums of money to flow into the channels of trade, prices in Greece rose at once. In Rome the influx of gold and silver from the treasures of the provinces caused a considerable rise in general prices. On the other hand, in the time of Charles the Great, and for a considerable period before and after his time, we find surprisingly low prices, obviously the result of the scarcity of the precious metals in the channels of trade. Differences of opinion may exist as to how great the rise was in the prices of all commodities at the close of the sixteenth century and first half of the seventeenth; but it is certain that the cause of so great and permanent a rise in prices is to be sought in the extraordinary increase in the production of the precious metals which took place at that time. As this increase of production went on, some economists of the eighteenth century thought that the flow of silver to the East was a blessing for Europe, since without it an unendurable rise in prices would have taken place.

In the period from 1815 until about 1840 Europe's supply of precious metals fell off, in consequence of the decrease in the gold production in Mexico and South America. Huskisson and W. Jacob, the English economist, believed that this was the chief cause of the depression of trade and the low prices of commodities during that time.

This opinion was then almost universally entertained; but before long doubts began to be expressed.

In a work published in 1843 by J. Helferich, entitled "The Periodic Changes in the Value of the Precious Metals from the Discovery of America to the Year 1830," it is said:

At the beginning of the period between 1815 and 1830, when the stream of the precious metals had been suddenly interrupted, we find, notwithstanding the decrease in the circulating medium of Europe, about the same prices that ruled on the

Continent at the time of the greatest accumulation of gold. * * * It seems to be a characteristic of modern trade that money, as a medium of exchange, tends more and more to lose its influence upon the prices of commodities. * * * Changes in the metallic medium of exchange, so far as they occur independently, and not merely in consequence of the state of trade, are of insignificant importance compared to the extraordinary variety of possible changes in the course of trade. At all events, they are not worth considering as compared to those great changes which credit is constantly able to bring about. It is the characteristic of credit that it is able to draw a line between the two functions of money, its function as a measure of value and its function as a medium of exchange. It creates a medium of exchange without touching the measure of value. It can make any commodity the medium of exchange, while metallic money remains the standard of value. * * * In earlier times, when there was no other medium of exchange than that which was also the measure of value, when insecurity of property and scanty development of trade prevented the use of credit, then changes in the only existing medium of exchange, a medium which stood by itself because no other commodity was in universal demand, necessarily exercised a great effect on prices. The situation is essentially different at the present time. * * * The greater the range of commercial transactions, the less is the influence exercised on the movement of prices by gold as the medium of exchange, and the more independent is the movement of prices.

Helferich's conclusion is that the prices of commodities are fixed only by causes inherent in themselves [*nach deren eigener Wertbestimmung*], and that gold is called cheap or dear according as the level of prices is high or low. Variations in the value of money are consequences of changes in the value of commodities, and not their cause.

At the beginning of the decade 1850-'60 the prices of a number of important articles rose considerably, at the time when the extraordinary production of gold in Australia and California took place. This was supposed to be the natural result of the remarkable increase in the medium of exchange, and it was considered needless to search for other causes.

When this general rise of prices ceased, after the speculative years 1872-'73, and when in many branches of trade a continuous fall in the prices of important commodities set in, the change was ascribed, in accordance with the *Quantitäts-Theorie*,* then generally entertained, to the cessation of the coinage of silver in all European states, and to the appreciable decrease in the production of gold, combined with the increased demand for gold. A very weighty statement to that effect was made by Mr. George Goschen, in his address at the Institute of Bankers, April 18, 1883, "On the Probable Results of an Increase in the Purchasing Power of Gold." Mr. Goschen pointed out that since 1871 Germany, the United States, Italy, and the Netherlands had absorbed, in consequence of their adoption of the gold standard, about £200,000,000 sterling of gold. This absorption had coincided with a considerable decrease in the production of gold, the production having fallen off £10,000,000 sterling per year. Mr. Goschen laid it down as an axiom, universally accepted, that the prices of commodities were affected by the quantity of the circulating medium, which, indeed, found its expression in prices. The extraordinary demand for gold must have brought about a general decline in prices. This reasoning was confirmed by the great fall in prices of important commodities which had taken place in 1883 as compared with 1873. Such a comparison showed a general fall, although exceptional circumstances had maintained the prices of a few articles. Mr. Goschen does not expressly state, yet he obviously believes, that the demonetization of silver in many countries, bringing about an extraordinary demand for gold, has been the real cause for the fall in prices. This belief is in harmony with his statements made at the International Monetary Conference in Paris, in 1878, to the ef-

* The theory that prices vary with changes in the quantity of money.

fect that the continued demonetization of silver would bring about a financial and commercial catastrophe such as had never before been seen. The opinion of Mr. Goschen, that the appreciation of gold was the true cause of the general fall of prices, has been accepted in many quarters in England, and has been accepted still more generally by the champions of bimetallism on the Continent.

Mr. Giffen published in the *Contemporary Review* for June, 1885, an essay following the same train of thought (*Trade Depression and Low Prices*). We will give the essential points in Mr. Giffen's essay. As a proof of the extraordinary fall in prices i.e presents a comparative statement of the wholesale prices of sixteen important articles.

Prices of leading wholesale commodities in January, 1873, 1879, 1883, and 1885, compared.

Year.	Scotch pig-iron, per ton.	Coals, per ton.	Copper, Chili bars, per ton.	Straits tin, per ton.	Wheat, Gazette average, per quarter.	Wheat, red spring, at New York, per bushel.	Flour, town made, per sack.	Flour, New York price, per barrel.
1873.....	s. d. 127 0	s. d. 30 0	£91	£142	s. d. 55 11	\$1.70	s. d. 47 6	\$7.50
1879.....	43 0	19 0	57	61	39 7	1.10	37 0	3.70
1883.....	47 8	17 6	65	93	40 4	1.18	38 0	4.30
1885.....	41 9	18 0	48½	77½	34 11	.91	32 0	3.25

Year.	Beef, inferior, per 8 pounds.	Beef, prime small, per 8 pounds.	Cotton, middling upland, per pound.	Wool, per pack.	Sugar, Manila, Muscov., per cwt.	Coffee, Ceylon, good red, per cwt.	Pepper, black Malabar, per pound.	Saltpetre, foreign, per cwt.
1873.....	s. d. 3 10	s. d. 5 8	d. 10	£23	s. d. 21 6	s. d. 80 0	d. 7	s. d. 29 0
1879.....	2 10	4 9	5½	13	16 0	65 0	4½	19 0
1883.....	4 4	6 0	5½	12	16 6	72 6	3½	19 0
1885.....	4 0	5 4	6	11	10 0	71 0	3½	15 8

Mr. Giffen adds that for about fifteen years after 1845-'50 prices had tended to rise. From 1860 to 1873 they had, upon the whole, been stationary, fluctuating between certain maximum and minimum prices; after 1873 a distinct tendency towards a fall was noticeable, the oscillations being about the same as those occurring before 1850, while the general level was somewhat lower.

Two causes, he continues, have been assigned for the fall of prices since 1873. In the first place, the great increase in the quantity of commodities and the diminution in their cost of production, resulting from the progress of industry and of the means of transportation, from cheap freight rates, the telegraph, etc. In the second place, the comparative scarcity of gold, of which the production had fallen while the demand for it had risen. Mr. Giffen lays more stress upon the second cause. He believes it to be immaterial whether commodities increase in quantity or gold decreases (or fails to increase at the same rate as commodities increase). In either case the ratio between gold and commodities is changed. If the production of gold had increased and its cost of production had diminished to the same extent as in the case of commodities, the increased supply of commodities would have shown itself in a rise of money wages, of ground rents, and of business profits, but not in low

prices of commodities. If the latter phenomenon has set in, it is an absolute proof that the ratio between gold and commodities has changed, and that the same increase in their quantity and the same diminution in their cost of production have not set in. Mr. Giffen points out, as Mr. Goschen had done, that the annual production of gold had averaged £30,000,000 sterling between 1852 and 1856, and in recent years has fallen to less than £19,000,000 sterling. On the other hand, Germany, the United States, Scandinavia, Holland, and Italy had absorbed for coinage about £200,000,000 sterling in the last thirteen years. Moreover, the money market had indicated a scarcity of gold. It has been said that a scarcity of gold in the last ten or twelve years would have shown itself in higher rates of discount and interest than those that had prevailed at the time of the abundance of gold, and, since no such higher rates were to be seen, that gold had not been scarce. But Mr. Giffen answers that for longer periods the rate of discount and of interest depends, not on the scarcity or abundance of gold, but on the scarcity or abundance of loanable capital. A scarcity or abundance of gold influences the money market by bringing about monetary difficulties, and times of temporary embarrassment and lack of credit. Such a state of things would either check the tendency to rising prices or increase the tendency to falling prices. The average rate of discount during the whole of such a period of sudden rises in the rate of discount might be lower than the average rate in times when such rises were less frequent. Nevertheless the mere existence of a series of such rises would suffice to exercise a depressing effect on prices. Now he points out that the history of the money market since 1871, when Germany began to procure gold from London, was full of sudden rises of this kind. They have happened in every year, except 1879 and 1880, and they are to be ascribed to the unusual demands for gold and to the difficulty of fulfilling those demands. These facts lead unavoidably to the conclusion that the general course of prices in modern times, so remarkably different from the course of prices after the Californian and Australian gold discoveries, was the result of the decreased production of gold and the increased demand for gold. It has been objected that the increase of banking facilities and other economies in the use of gold have offset its scarcity, but Mr. Giffen's answer is that in the period from 1850 to 1865, and in the subsequent period up to 1873, such economizing devices had been, in comparison to the transactions of those times, equally considerable. The rise in wages, in ground rents, in business profits, which took place during the earlier rise in prices, has ceased since 1873, a state of things resulting naturally from the scarcity of gold. But he says, in conclusion, that we are still too near these phenomena to have comprehensive information in regard to them.

Mr. Giffen has repeated his opinion that the decrease of the production of gold and the increase in the demand for it have been the causes of the decline in prices, and has cited further facts in support of it, in his essay entitled "Gold Supply, the Rate of Discount, and Prices" (Essays in Finance, 2d series, London, 1886). As might be expected, Giffen does not maintain the so-called *Quantitäts-Theorie* in the crude form in which it had been applied to a simple economic state where credit was little or not at all developed. He takes account of the complicated development of modern trade, with its extended banking and credit system. He repeats that the expedients for economizing the uses of gold have already reached a complete development. Other things remaining the same, the increase of population and of production will still call for a corresponding increase in the coin for ordi-

nary transactions and for the reserves of banks, if a fall in the general level of prices is to be prevented. A scarcity of gold would show itself first in the reserves of the great banks and through them, indirectly but inevitably, in the rate of discount and in prices. He therefore believes that, unless an increase in the supply of money takes place, a further fall in prices is inevitable.

We have not space to give Mr. Giffen's discussions in detail, but it should be said that they take first rank among those maintaining the validity of the *Quantitäts-Theorie* in our present complicated system of industry.

The bimetallists of Germany, as a rule, accept with little qualification the conclusions of Messrs. Goschen and Giffen in regard to the effect of a scarcity of gold upon general prices. Sometimes this is done with qualifications. Dr. Arendt, in number 11 of the publications of the German Society for International Bimetalism, expresses himself as follows :

It is as false to suppose that there is a mathematical agreement between the general state of prices and the amount of money in circulation as it is to deny entirely the connection between these two things. Slight fluctuations in the quantity of money will have no effect. Great fluctuations, on the other hand, for instance, a great increase in the quantity of paper money, will certainly have their effect on prices. But this factor is not an all-important one. In modern times most prices are governed, not by the industry of a single country, but by that of the world at large. Here it is, in our opinion, that the gold standard, whatever be our general theories, has undoubtedly been of practical effect in bringing about the fall in prices. Within any one country the development of credit has made it certain that the amount of money in circulation will accommodate itself to the demand. If the demand increases the quantity of uncovered notes increases, the bank reserve declines, the rate of discount rises, and a higher rate of discount attracts the precious metals from abroad. If, on the other hand, the amount of money in circulation exceeds the demand, coin accumulates in the banks, the rate of discount falls, and coin flows to places where it is more in demand. This healthy development of trade is checked nowadays only by the scarcity of gold, which causes every country to watch jealously its holding of gold, since no one knows whence gold, once lost, may be reobtained. In a sense, therefore, the amount of money in circulation depends on prices, and not prices on the amount of money. But this principle holds good only for a single country, not for the world at large, and it is in the world at large that general prices are fixed.

It is not to be denied that the production of the precious metals has always exercised an extraordinary effect on general prices. This fact, hardly to be doubted, may have led to undue emphasis in stating the connection between the quantity of money and prices. For ourselves, we deduce an indirect *Quantitäts-Theorie*. A single country, by means of the rate of discount, regulates its circulation according to its needs. If an abundant supply of the precious metals sets in, a low rate of discount will prevail on all hands, and thereby a stimulus will be given to production; on the other hand, a scant supply of the precious metals will lead to an insufficiency in the circulating medium, and then the attempt must be made, as it is now made in England, to attract precious metals by means of high rates of discount. Other countries, which can afford to lose no precious metals, are affected by such action, so that the rise in the rate of discount becomes general, as is seen, for instance, in the rise in the rate of discount at our Imperial Bank. Such a state of things necessarily impedes production.

The direct demand for commodities resulting from the newly-produced precious metals is a more important factor. The mine owner wants consumable commodities; he must have articles of food and comfort. The work [*verdiens*], which he supplies, acts on and on, and everywhere stimulates profitable labor.

At the present time we have to deal with a phenomenon which can not be fitted exactly to the scientific rule, namely, the depreciation of one metal which had served as money. The depreciation of silver is, to our mind, an important cause of the fall of prices, and therefore the *Quantitäts-Theorie* does not give a final explanation. The adherents of the gold standard maintain that the restoration of the value of silver would mean a depreciation of gold by 20 per cent., and for that reason they are bitterly opposed to the double standard; but if this be true, the converse must also be true, and the depreciation of silver by 20 per cent. must have caused the value of gold to rise by 20 per cent. It is said that bimetalism will cause a depreciation of gold by 20 per cent., that is, a rise in prices of 20 per cent. But then it must be ad-

mitted that the present prices have fallen by 20 per cent. in consequence of the gold standard. The fundamental difficulty of our time is found in the low range of prices. We can not be frightened, therefore, if a depreciation of gold, that is to say, a rise of prices and a return to normal industrial conditions, is prophesied as the lamentable consequence of bimetallism. We do not go so far as the adherents of the gold standard. We believe that the depreciation of silver has decreased prices, because silver-using countries (Eastern Asia, America) have had a diminished purchasing power, and have been able to buy European products only at lower prices or not at all. At the same time the increased demand for gold had prevented the weaker countries from maintaining their standards. The premium on gold rose everywhere, in Austria, Russia, Roumania, as much as in Brazil and the Argentine Republic. Consequently these countries were no more able to buy European products than the silver countries, or could buy only at lower prices. At the same time, the decline in the value of their medium of exchange enabled them to export at lower prices to the gold countries. Consequently a double pressure upon prices arose in those countries, such as necessarily arises from a decrease in demand combined with an increase in supply. The scientific bimetallists predicted precisely this state of things. They asserted that the gold standard must lead to a rise in the gold premium, and that such a rise has an effect exactly opposite to that of an import duty; it stimulates imports and checks exports. The bimetallists predicted that protective duties would first be resorted to as an offset to this state of things, but that it would soon appear that protective duties could not offset the increase in the gold premium. This conviction has spread more and more rapidly, and will eventually lead to the victory of the bimetallists. As the depreciated silver has been the direct cause of the fall of prices, so, as is obvious, without any theoretical arguments, the restoration of silver will lead to the return of normal prices. The silver-using countries will become profitable purchasers of European products, the premium on gold will decline in the countries that have a paper currency, the differences in the value of coin in different countries will diminish or disappear, the import of commodities into the gold countries at sacrifice prices will cease, demand will increase, supply will diminish, prices will rise.

A recent publication, entitled "The Silver Question and its Social Aspects: an Inquiry into the Existing Depression of Trade and Present Position of the Bimetallic Controversy," by Hermann Schmidt (London, 1886), maintains most emphatically the view that the low range of prices and the depression of trade are to be ascribed to the appreciation of gold, which again is due to the depreciation of silver. The causes which the opponents of this view have brought forward, such as the cheapening of commodities, the great increase in their quantity, the improvements in transportation and in the arts generally—all these had been in effect before 1879, without then causing any general and permanent fall of prices. Such a fall had set in only with the depreciation of silver that resulted from mistakes in the coinage policy of various countries. It is not true, says this writer, that the facilities in the use of money through banking and credit give a sufficient substitute for the diminished supply of metallic money, nor do they serve to render the scarcity of gold a mere scarecrow. These substitutes have been in use in earlier years, and can not be employed without a sufficient basis of coin. If substitutes for coin do not come into increasing use, as trade and demand increase—if, on the contrary, the demonetization of silver and the decline in the monetary gold supplies check their use—then the stimulus to the easy action of money by the use of credit must also be checked, and prices will fall even lower. A remedy can be found only in international bimetallism.

The view that the scarcity of gold and the depreciation of silver are the true causes of the continued fall in prices and the depression of trade is met, on the other hand, with the assertion that these events, in so far as they really have taken place, stand in no connection with the silver question, but may be explained easily and sufficiently in other ways.

Mr. Hansard, in an address presented on December 17, 1884, to the Institute of Bankers, entitled "On the Prices of some Commodities

during the Decade 1874-'83," has endeavored to show that the cause of the fall in prices lies not in a scarcity of gold, but in an overproduction of commodities. He maintains the same view in his testimony presented on May 31, 1886, to the British commission for investigating the causes of the depression of trade. He believes that no real scarcity of gold has been felt in England, as is proved by the low average rate of discount which the Bank of England has maintained for the last ten years. Moreover, a rise in the purchasing power of gold and a fall in general prices are one and the same thing, and therefore one of them can not be the cause or the consequence of the other. Mr. Hansard has shown in detail the remarkable increase in the production and stock on hand of twenty-five important articles, and presents the following comparative statement, in percents, of prices and stocks :

At the close of—	Stocks.	Prices.	At the close of—	Stocks.	Prices.
1874	2500	2500	1879	3169	2400
1875	2545	2360	1880	3333	2194
1876	2824	2504	1881	3361	2232
1877	3351	2248	1882	3303	2119
1878	3448	2140	1883	3310	2111

Twenty-one of these articles show a fall in price, and in part a considerable fall, in 1883 as compared to 1874, namely : Sugar, tea, coffee, rice, indigo, ginger, wool, cotton, jute, cochineal, soda, saltpeter, hides, tallow, timber, iron, copper, tin, wheat, coal. Four articles do not participate in the general fall, cocoa, paper, silk, and meat, but the rise in their prices is very slight.

The need of gold for effecting payments is constantly lessening, according to Mr. Hansard. The use of credit in the form of checks is constantly increasing. The transactions through the clearing-house, in which not a single gold piece is used, show a steady increase. The annual transactions of the London clearing-house were, in the years 1871-'75, £23,613,000,000 sterling, while in the years 1881-'85 they were £29,816,000,000. The use of checks by people of small means is extending; the growth of banks and of branch banks throughout the country causes a class of customers to arise who formerly used nothing but gold or bank-notes for their daily payments, and now use checks to a large extent. If an increase in bank facilities had not taken place side by side with the great growth of imports and exports, prices would have fallen still lower. The postal savings banks, whose deposits have risen gradually to £45,000,000 sterling as against £15,000,000 in 1870, have attracted gold coins from the pockets and hoards of people of small means, and have promoted a quicker circulation of coin. The sovereign is becoming a standard of value rather than a coin. Mr. Hansard finds the chief cause of the fall in prices and the depression of trade in overproduction and excessive supply. Overproduction is the result of the increased use of steam in manufactures and in transportation. The development of the railroad system of India, of the United States, of South America, the improvement and cheapening of transportation by sea, the saving of time by the Suez Canal, all these have brought new supplies of many important articles. The development of the joint-stock principle has aided in stimulating production, even though dividends have been low. The growing use of the telegraph has tended to increase the effective supply of commodities. In the distribution of goods, smaller stocks are required, since orders can now be filled in incredibly short time, yet stocks have accumulated in large amounts.

Prof. E. Nasse, in a discussion of the silver question, published in the *Preussische Jahrbücher* for March, 1885, has also touched on the alleged effect of the scarcity of gold, and has expressed his views, in essentials, as follows :

A general fall of prices as compared with the times that preceded the speculative period 1871-74, has not been shown to exist. The fall has been clearly proved only for the more important commodities of wholesale trade, especially for raw materials and articles half manufactured. No fall has been proved in the wages of ordinary or skilled labor, in retail prices, and especially not in finished commodities.

For such change as has taken place a much simpler explanation than a scarcity of gold is to be found. A great diminution has occurred in recent times in the cost of production of a number of commodities, and especially of those commodities which are generally selected in order to ascertain changes in the value of money. The opening of new and fertile regions in almost all quarters of the globe, and the rapid extension of the arts of civilization, has rendered it possible to produce with less labor and capital almost all agricultural products and many mineral products. Improvements in the means of transportation have enabled these articles to be brought more cheaply to European markets. * * * In addition to this improvement in the production, and fall in the price, of the most important raw materials, the manufacturing arts are also constantly advancing, and cheaper and better methods of production are being discovered. Striking examples are to be seen in the production of steel, of sugar, of important dye-stuffs, and in the great saving of expense by the growth of large establishments and of production on a great scale. Lastly, the cost of transportation, which forms so important a part of the cost of many commodities, has undergone an extraordinary change. * * * Such a decrease in the amount of labor and capital needed for production must have an effect on money prices, if money possesses the qualities of a good measure of value. If the causes directly affecting the value of money undergo no change, a widespread fall of prices must set in. Only if there had been a tendency toward cheaper money as powerful as that for cheaper commodities, would it have been possible that commodities should retain their former prices. * * * Still another consideration makes it improbable that the fall in prices is to be explained from a scarcity of money. A scarcity of money in the present condition of banking in Germany, England, and other countries will first make itself felt in a demand for gold at their banks. Firms or persons who need the means of making payments get their supplies from the smaller or larger banks with whom they deal, and deposit any surplus in those banks. * * * The banks, however, are directly or indirectly connected with the great central banks, which alone are able to increase the medium of exchange, by increasing their note circulation or diminishing their holdings of coin. They also absorb any surplus in the medium of exchange, when notes are paid, loans on collaterals are paid, or deposits are received. * * * Every demand for money is soon translated into a demand for loans at the Imperial Bank. The bank raises or lowers its rate of discount as the demand is large or small, and a scarcity of money must therefore show itself in high rates of discount; but no such effect can be traced in recent years. * * * In most civilized countries a very small proportion of transactions is carried on with full-weight coin. Larger payments are effected by bank-notes or by bank balances and clearing-houses, while small payments are effected by credit coins. The practice of effecting payments by the transfer of credit, or by offsetting debts, is susceptible, without any increase in the coin supply, of great extension; and a comparatively small growth of this practice serves to offset a considerable decrease in the production of gold. Credit has a steady tendency to counteract an excess or a deficiency of gold, and a lack of means of payment does not easily occur so long as credit is not shaken. * * * No proof has yet been adduced that a scarcity of gold has caused any change in the value of money in countries having the gold standard. All the facts referred to in proof of such an assertion are susceptible of a different explanation.

A report published in the *Mitteilungen des Vereins z. W. d. w. I.* in Rheinland und Westfalen, for June, 1885, also maintains that the scarcity of gold is not the cause of the fall of prices, but that this fall, in so far as it must be admitted to have occurred, is the result of independent causes. It is said:

We see that, in the main, those articles have fallen in price which can be produced in almost any desired quantity in a comparatively short space of time. Other articles have fallen in price much less, for instance, fresh meat, pelts, hides, etc., which cannot be increased in quantity as rapidly as metal and textile products. Consequently the former have not fallen in price as much as the latter; on the contrary,

they have rather risen. Of course, there are exceptional cases, caused by the competition of new countries or the cheapness of a competing substitute, as, for instance, the case of wool. It can not be asserted that the fall in prices is due to a scarcity in the circulating medium. Such a scarcity must first be proved. The diminution in the production of gold by no means proves that such a scarcity exists. The trade of modern times, especially in those branches in which it has most largely increased, is carried on less and less with coin and more and more by the use of bills, of discounts, by arbitrage, and in other ways in which coin is the standard, but it is not used in making payments. The general rate of interest and the rate of discount to merchants have lowered in the last ten years. If, nevertheless, business men find that their position has become less satisfactory, this can not be ascribed to a lack of circulating medium resulting from the gold standard, but must be explained in other ways. The great cause is the extraordinary increase in modern times, the excessive increase, in the supply of all kinds of salable commodities. Railroads and steamships bring commodities to market much quicker than the carrier and sailing vessel of former times, while the telegraph enables the same supply to be offered contemporaneously in many markets. Offers are pressed, prices fall, and the effect is intensified because the improvement in means of communication renders it needless to keep considerable stocks on hand. The same fall in prices has taken place in countries using a depreciated paper money, which indicates that the fall is not to be ascribed to an appreciation of gold.

It is then stated that when the great investments of capital in railroads in almost all the civilized countries came to a close, a large amount of labor and capital became free, and most of it was devoted to producing commodities for immediate consumption. This increase in production, and not an increase in the purchasing power of gold, has caused the great fall in prices.

M. Paul Leroy-Beaulieu writes in the same sense in an essay in the *Revue des deux Mondes*, May 15, 1886, which has been translated into German under the title, "The Fall in Prices and the Crisis in the World's Trade." In the preface to this translation it is pointed out that the difficulties under which the trade and industry of the whole world suffer are not to be put in the class of those temporary troubles which are the result of exceptional disturbances or previous excesses, and are soon followed by a return to normal conditions. It is said, in agreement with M. Leroy-Beaulieu, that the world's trade is entering on an entirely new phase, whose causes and effects are so deep rooted and on so large a scale that all explanations based on temporary and accidental events and measures must at once be set aside as false. Moreover, all artificial interference, resting on a superficial understanding and making a superficial attempt at improvement, is mistaken, and can result only in harm.

M. Leroy-Beaulieu denies, in a detailed discussion, the proposition that the depreciation of silver and the decrease in the production of gold are the causes of the fall in prices. The cause is to be found in the opening of new lands, in the ease of transportation from all countries, in the greater yield of newly-invested capital, in the improvement of the means of communication by sea and by land, in the decline in ocean freights and in railroad rates, and lastly in the mechanical and chemical advances made in all branches of manufacture. It is by no means necessary, in order that prices should be maintained, that the quantity of the precious metals forming by law or by custom the standard of value should increase in proportion to the extension of volume of trade. The telegraph, among other causes, diminishes markedly the use of the precious metals in international trade. The methods of offsetting payments in different markets have greatly developed. The development of international trade in securities has made it possible to send capital abroad without the transportation of a grain of gold or silver. The use of bank-notes has penetrated to all classes, and checks have become a more common medium for payments. The precious

metals, accumulated as they now are in the great banks, suffer less from abrasion, from transportation, from accidental loss, and from hoarding. The whole world is adapting itself to a diminished use of precious metals, both in domestic and in foreign trade.

We have presented, without criticism of our own, these opposing opinions, from some of the best-known authorities, on the causes of the fall in prices in modern times. Such an unbiased report, in which it is likely that all the more important causes and points of view will be brought out, or at least sufficiently indicated, seems essential, at the present stage of the silver question, to the completeness of our Materials.

The discussions cited in the preceding paragraphs are concerned almost exclusively with wholesale prices. But these are not alone to be considered—perhaps they are not chiefly to be considered—in judging of the purchasing power of gold.

While merchants and manufacturers in recent years are complaining more and more of scarcity of gold, of a fall in prices, and a depression of trade, we hear, on the other hand, from quarters that deserve quite as much attention, complaints of the dearth of living and the fall in the value of money. The steady demand for higher salaries and wages is obviously quite opposed to the alleged appreciation of gold, and, indeed, is based on the assertion that the purchasing power of gold has not risen, but rather fallen. It is true that the main increase in living expenses belongs to the period from 1856 to 1873. But even in recent years, from 1878 to 1885, such an increase has continued in many respects, as, for instance, in rents in the larger cities, in the wages of servants, in professional fees, in the price of many handicraft articles. This is mainly due to the rise in the standard of living among all classes; the consequence is that everything which calls for payment of personal services has become dearer than in former times. Among the well-to-do, luxury and expense have increased appreciably even during the last decade. Every class in the population wishes to imitate the mode of life in the class just above it, and everywhere those expenses which are considered necessary, or conventionally proper, show an increase. A family which required ten and twenty years ago, say 20,000 marks per year to meet the expenses required of its rank in society, finds its budget for the same expenses rise to 25,000 marks. In the same way, a working-man's family believes that a weekly income of 20 to 25 marks does not suffice, whereas 15 or 20 marks used to enable it to make both ends meet. For many classes of subordinate officials, for teachers in the public schools and other institutions, clergymen, officers, for pensioned widows, greater sums are asked and generally are granted. The decisive reason and generally the only one alleged in support of such changes is the fall in the value of money and the consequent greater dearth of living. The decline in prices which it is attempted to prove from prices current and statistical tables, is said in practice to make no difference.

It appears, then, that the reasons brought forward to prove the increase and the decrease in the purchasing power of money are opposed to each other. It must be admitted that there is a certain degree of foundation for both views—everything depends on the point of view.

Obviously it would be a mistake if we were to pay no attention to changes in the cost of living, and were to consider only wholesale prices, when attempting to measure changes in the value of money. We shall pay attention, in accordance with the object of the present publication, chiefly

to the prices of commodities, and shall return to their detailed consideration. But we should treat the subject very incompletely if we were not to present at least some statistics on wages and the cost of living. It will be necessary, however, to content ourselves with a few selected statements.

In regard to changes in wages since 1848, we are able to present a statement which differs from other and doubtless interesting statements in one important respect. It presents continuously the wages paid by a public authority to a large number of persons for the same work for a period of thirty-nine years. As will be seen in due time, the most important statistical material which we shall present on prices is derived from the trade of Hamburg. The reader will therefore welcome statements of the purchasing power of wages for ordinary labor, which also refer to Hamburg.

Daily wages paid by the Building Commission at Hamburg from 1848 to 1886.

Year.	Time of year.	Stone-cutters.	Masons.		Assistants to masons.		Laborers.		Working day, from morning to evening.*
			First class.	Second class.	First class.	Second class.			
		<i>Marks.</i>		<i>Marks.</i>		<i>Marks.</i>		<i>Marks.</i>	
1848	Summer	2.40		1.80 to 2.40		1.35 to 1.50		1.20 to 1.35	
	Winter	1.80		1.65 1.80		1.20 1.35		1.05 1.20	
1850-'51 ...	Summer			2.40		1.50		1.20 1.35	
	Winter			2.10		1.35		1.05 1.35	
1856	Summer			2.40 to 2.70		1.80		1.50 1.80	
	Winter			2.10 2.55		1.65		1.35 1.65	
1861	Summer			2.55 2.70		1.80 to 1.95		1.50 1.80	
	Winter			2.25 2.55		1.65 1.80		1.35 1.65	
1867	Summer	3.60	2.70	2.55	2.10		1.65 1.80		6 to 7
	Winter	3.30	2.40	2.25	1.95		1.50 1.65		7 5
1868-'70† ...	Summer	3.60	3.00	2.70	2.25		1.80 2.10		6 7
	Winter	3.30	2.70	2.40	1.95		1.50 1.80		7 5
1871	Summer	3.60	3.00	2.70	2.25		1.80 2.10		6 7
	Winter	3.30	2.70	2.40	1.95		1.50 1.80		7 5
1872	Summer	3.90	3.30	3.00	2.55	2.40	1.80 2.40		6 6
	Winter	3.60	3.00	2.70	2.25	2.10	1.50 2.10		7 5
1873	Summer	4.05	3.30	3.00	2.70	2.55	1.80 2.40		6 6
	Winter	3.75	3.00	2.70	2.40	2.25	1.50 2.10		7 5
1874-'78; ...	Summer	4.65	3.90	3.60	3.30	3.15	2.25 3.00		6 6
	Winter	4.35	3.60	3.30	3.00	2.85	1.95 2.70		7 5
1879-'85	Summer	4.65	3.90	3.60	3.30	3.15	2.25 3.00		6 7
	Winter	4.35	3.60	3.30	3.00	2.85	1.95 2.70		7 5
	Spring								
	Fall.....	4.50	3.75	3.45	3.15	3.00	2.10 2.85		6 6
1886	From Mar. to Nov. .	4.65	3.90	3.60	3.30	3.15	2.25 3.00		6 6
1886-'87	From Nov. to Mar. .	4.35	3.60	3.30	3.00	2.85	1.95 2.70		7 5

* Inclusive of interruptions for breakfast, dinner, and supper, which amount in summer to two hours all told. At other seasons of the year the interruptions are shorter.

† Up to the close of the year 1868 tools were supplied to the workmen by the authorities. Since 1868 the workmen have furnished their own tools.

‡ Since 1874 record books were introduced for the workmen, and an organization for their care in case of sickness went into operation.

If we take the average of winter and summer wages as given in these tables, and also the average of the general statements where winter and summer wages are not specially stated, and if we reckon 304 working days to the year, we arrive at the following statement of the difference in money wages in the last thirteen years as compared with the years

1848-'51. We insert a statement in per cents. for more easy comparison :

Yearly wages.

Occupation.	1848-'51.		1874-'78.		1879-'86.	
	Marks.	Per cent.	Marks.	Per cent.	Marks.	Per cent.
Stone-cutters	638.40	100	1,368.00	198.00	1,368.00	198.00
Masons :						
First class	632.82	100	1,140.00	180.20	1,140.00	180.20
Second class			1,048.80	165.87	1,048.80	165.87
Mason's assistants :						
First class	422.56	100	957.60	226.62	957.60	226.62
Second class			912.00	215.83	912.00	215.83
Laborers	367.20	100	752.40	204.55	752.40	204.55

A trustworthy and important contribution toward understanding the changes in the cost of living in Germany can be found, we believe, in the following tables of the salaries of employes on the state railways of Prussia, in the years 1850, 1872, 1880, 1885. The gradual advance in these salaries is the result, in the nature of the case, of the belief that the old salaries no longer gave the employes a sufficient income, that is, an income sufficient for their station in life. Each class of employes is specified, and they are divided into different categories, so that we are able to follow in detail the changes in these incomes. The salaries in the two lower categories have risen appreciably more than those in the upper category. The two lower show an increase from 1850 to 1885 of 74.4 per cent. and 102.5 respectively, while the upper shows an increase of 46.6 per cent.

The figures of this table are taken from the printed documents of the Prussian Landtag, second legislative period, third session, 1872-'73, number 148, and from the "Statement of the employes of railroads operated by the state, of their regular salaries, etc." (Supplement B., 5, to the Budget of the Prussian Railways for 1886-'87.)

Salaries of Prussian railway employes in 1850, 1860, 1872, 1886.

Employes.	By the general regulations of November 5, 1850.			1860.		
	Max.	Min.	Average.	Max.	Min.	Average.
<i>First class.</i>						
Station watchman	Marks. *1,050	Marks. 750	Marks. 900	Marks. 11,200	Marks. 900	Marks. 1,050
Track man	*1,050	750	900	11,200	900	1,050
Signal man	*450	300	405	540	360	450
Switch man:						
First class	*450	375	405	720	450	585
Second class						
Porter	*750	450	600	900	450	675
Night-watchman			*300	450	360	405
Fireman	*750	540	645	900	600	750
Conductor	*900	750	825	1,050	750	900
Baggage man	*750	540	645	900	540	720
Guard	*900	450	525	720	450	585
Brakeman	*600	450	525	730	450	585
Train hand (Wagenmeister)				1,050	750	900
Baggage-master	*750	540	645	900	600	750
Welcher	*750	540	645	900	600	750
Crane hand				900	750	825
Ticket stamper	900	600	750	1,050	900	975
Telegraph watchman				1,050	750	900
Telegrapher				900	750	825
Warehouse keeper				900	450	675
Office porter	*750	450	600			
Average			644			766

Salaries of Prussian railway employés in 1850, 1860, 1872, 1886—Continued.

Employés.	By the general regulations of November 5, 1850.			1880.		
	Max.	Min.	Average.	Max.	Min.	Average.
<i>Second class.</i>						
Station agent:	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
First class	2,100	1,350	1,725	2,100	1,500	1,800
Second class	1,350	1,050	1,200	1,500	1,200	1,350
Assistant at station	1,200	540	870	1,200	900	1,050
Telegraph superintendent .....	.....	.....	.....	2,700	1,800	2,250
Locomotive engineer	1,200	900	1,050	1,500	900	1,200
Shop superintendent	1,800	1,200	1,500	2,100	1,200	1,650
Foreman	900	600	750	1,500	750	1,125
Draughtsman .....	.....	.....	.....	.....	.....	.....
Clerk .....	.....	.....	.....	.....	.....	.....
Supply agent:	.....	.....	.....	.....	.....	.....
First class	1,200	540	870	1,200	1,500	1,800
Second class	1,200	540	870	1,500	900	1,200
Cashier at station	1,200	540	870	1,800	1,050	1,425
Cashier's clerk	900	600	750	1,200	750	975
Ticket seller	1,200	540	870	1,800	1,050	1,425
Merchandise forwarder	1,200	540	870	1,800	1,050	1,500
Baggage forwarder	1,200	540	870	1,200	900	1,050
Maintenance secretary	1,800	1,200	1,500	2,700	1,500	2,100
Operating secretary .....	.....	.....	.....	1,650	1,200	1,425
Clerks, etc., in general office	1,800	1,200	1,500	2,100	1,200	1,650
Average .....	.....	.....	1,086	.....	.....	1,480
<i>Third class.</i>						
Operating superintendent	4,500	3,000	3,750	4,500	3,000	3,750
Traffic superintendent .....	.....	.....	.....	.....	.....	.....
Building superintendent	2,400	1,800	2,100	2,400	1,800	2,100
Machinery superintendent	3,600	2,400	3,000	3,600	2,400	3,000
Head of main office	2,400	1,800	2,100	.....	.....	.....
Supply manager (?) .....	.....	.....	.....	.....	.....	.....
Inspectors	3,000	1,800	2,400	3,000	1,800	2,400
General paymaster	3,000	1,800	2,400	3,600	2,400	3,000
Operating paymaster .....	.....	.....	.....	.....	.....	.....
Book-keeper	2,100	1,450	1,725	2,400	1,500	1,950
Head cashier .....	.....	.....	.....	.....	.....	.....
Average .....	.....	.....	2,496	.....	.....	2,700
Employés.	1872.			1886.		
	Max.	Min.	Average.	Max.	Min.	Average.
<i>First class.</i>						
Station watchman	1,650	1,340	1,500	1,800	1,500	1,650
Track man	1,950	1,350	1,650	2,100	1,500	1,800
Signal man	750	600	705	750	600	705
Switchman:	.....	.....	.....	.....	.....	.....
First class	1,050	810	930	1,200	990	1,095
Second class	1,050	810	930	1,050	810	930
Porter	1,050	810	930	1,050	810	930
Night-watchman .....	.....	.....	.....	.....	.....	.....
Fireman	1,200	810	1,005	1,200	900	1,050
Conductor	1,200	1,050	1,125	1,350	1,050	1,200
Baggage-man	1,050	990	1,020	1,200	990	1,095
Guard	1,090	780	885	990	780	885
Brakeman	1,090	690	840	990	690	840
Train-hand (<i>Wagonmeister</i>)	1,200	1,060	1,080	1,350	1,050	1,200
Baggage-master	1,320	990	1,155	1,350	1,050	1,200
Weighter	1,320	990	1,155	.....	.....	.....
Crane hand	1,050	.....	930	1,050	810	930
Ticket stamper	1,200	840	1,020	1,350	900	1,125
Telegraph watchman	1,500	1,200	1,350	1,875	1,425	1,650
Telegrapher	1,350	1,050	1,200	1,600	1,050	1,275
Warehouse keeper	1,200	840	1,020	1,350	900	1,125
Office porter	1,050	810	930	1,050	900	975
Average .....	.....	.....	1,079	.....	.....	1,123

Salaries of Prussian railway employés in 1850, 1860, 1872, 1886—Continued.

Employés.	1872.			1886.		
	Max.	Min.	Average.	Max.	Min.	Average.
<i>Second class.</i>						
Station agent:						
First class.....	Marks. 3,000	Marks. 1,950	Marks. 2,475	Marks. 3,200	Marks. 2,100	Marks. 2,650
Second class.....	1,950	1,650	1,800	2,100	1,800	1,950
Assistant at station.....	1,350	1,350	1,500	1,800	1,500	1,650
Telegraph superintendent.....	3,600	2,700	3,150	3,600	2,700	3,150
Locomotive engineer.....	1,650	1,200	1,425	1,800	1,200	1,500
Shop superintendent.....	2,400	1,950	2,175	3,200	2,100	2,650
Foreman.....				2,400	1,950	2,175
Draughtsman.....				1,950	1,500	1,725
Clerk.....	1,950	1,050	1,500	1,950	1,200	1,575
Supply agent:						
First class.....	2,700	1,950	2,325	3,000	2,100	2,550
Second class.....	1,950	1,350	1,650	2,100	1,350	1,725
Cashier at station.....	2,550	1,500	2,025	3,200	2,400	2,800
Cashier's clerk.....	2,550	1,350	1,650			
Ticket seller.....	1,950	1,500	2,025	2,550	1,800	2,175
Merchandise forwarder.....	2,550	1,500	2,025	2,550	1,800	2,175
Baggage forwarder.....	1,650	1,050	1,550			
Maintenance secretary.....	3,300	1,800	2,550	3,600	2,100	2,850
Operating secretary.....	2,100	1,350	1,725	2,400	1,350	1,875
Clerks, etc., in general office.....	3,300	1,800	2,550			
Average.....			1,994			2,190
<i>Third class.</i>						
Operating superintendent.....	4,800	3,600	4,200	4,800	3,600	4,200
Traffic superintendent.....				4,800	3,600	4,200
Building superintendent.....	3,000	2,400	2,700	4,800	3,600	4,200
Machinery superintendent.....	4,200	2,400	3,300	4,800	3,600	4,200
Head of main office.....						
Supply manager (†).....	4,500	3,600	4,050			
Inspectors.....	3,600	2,250	2,925	3,600	2,250	2,925
General paymaster.....	4,500	3,600	4,050	4,800		
Operating paymaster.....				4,000	3,200	3,600
Book-keeper.....	3,300	1,800	2,550	3,600	2,100	2,850
Head cashier.....				3,600	2,100	2,850
Average.....			3,397			3,650

* Uniform in addition.

† Uniform not included.

‡ This office has been abolished; those formerly holding it are now maintenance secretaries.

Prices of land, and especially of agricultural land, would be of great interest for the discussion of changes in the purchasing power of money. It would not be difficult to get any number of single statements on this subject, from which, however, no general conclusions could be drawn. It is exceedingly difficult to get tables, even for small districts, which can be used with any confidence as indicating, even approximately, changes in the value of land. In general it is well known that the price of landed estates rose greatly in the sixties and in the early part of the seventies, and it is known that this rise in price has not continued since. But how great was the change in the general level of prices is indicated by no trustworthy statistics; and we are not able to fill this gap. In the absence of better information we venture to present a few statements of the rents paid in former times and at present for certain domains* of Prussia. As these domains are generally leased for long periods, as a rule for eighteen years, their rents are likely to run parallel with the selling prices of private estates of a similar kind, and indicate

* Strictly: Domänen-Vorwerke.

pretty closely what was the movement in the prices of the latter. It is true that on the renewal of some of the leases, whose totals we present, new conditions were inserted; but changes of this kind were made, on the whole, to no great extent and may fairly be disregarded. In some countries, in former times, personal considerations had an effect on the leases, but this was not the case in Prussia. The domains yielded as follows in the budgets of the years mentioned :

Years.	Area.	Per hectare.	Total.
	<i>Hectares.</i>	<i>Marks.</i>	<i>Marks.</i>
In the old provinces :			
1850	318,228	14.10	4,486,947
1860	295,155	17.55	5,179,209
1870	290,580	26.46	7,847,205
1880-'81	290,476	34.61	10,054,714
1884-'85	288,731	37.85	10,927,170
1886-'87	287,889	38.25	11,010,410
In newly-acquired districts :			
1870	51,940	39.60	2,057,000
1880-'81	53,214	47.78	2,542,533
1884-'85	50,847	52.45	2,666,854
1886-'87	50,708	52.85	2,660,155

It appears that in the old provinces rents rose between 1850 and 1886-'87 from 14.10 marks per hectare to 38.25 marks per hectare; that is, 171 per cent. In newly-acquired districts rents rose between 1870 and 1886-'87 from 39.60 marks to 52.85 marks, or 33 per cent. The net yield of the land tax on all the domain lands was, in the budget of 1884-'85, 7,658,401 marks (on 339,578 hectares cultivable ground), while the rents yielded 13,735,677 marks, or 40.45 marks per hectare.

The leases of domains of which earlier leases were thrown up between 1874 and 1875 yielded the following results :

Year.	Number of estates.	Surface.	Former rent per hectare.	New rent per hectare.	Increase in rent per hectare.
		<i>Hectares.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
1874	38	15,130	28.34	43.29	14.95
1875	58	18,357	81.07	43.15	12.08
1876	46	16,981	31.48	48.83	17.35
1877	58	20,430	29.99	51.99	22.00
1878	48	20,747	26.00	34.85	8.85
1879	49	27,827	28.71	36.96	8.25
1880	35	18,723	31.49	33.93	2.44
1881	43	20,211	88.17	41.99	3.82
1882	42	16,602	37.86	39.54	1.68
1883	69	26,097	85.20	51.58	16.38
1884	39	14,092	36.15	46.69	10.54
1885	43	*18,873† †18,690	34.28	45.34	11.06

* Formerly.

† At present.

The following statement of the changes in the rents of certain dwelling houses at Hamburg during the last thirty-five years will be of interest. They do not indicate, of course, changes in rents in general; but they are worth noting, because they rest upon detailed inquiries made year for year, and refer to dwellings in which no changes of importance were made during the whole period.

Estimated house rents (including rents when vacant).

Years.	Nine houses with high rents.		Ten houses with low rents.	
	Rent.	Increase.	Rent.	Increase.
	<i>Marks.</i>	<i>Per cent.</i>	<i>Marks.</i>	<i>Per cent.</i>
1850.....	83,855	100.0	55,762	100.0
1855.....	38,374	113.0	55,822	100.1
1860.....	48,104	144.6	59,268	106.3
1865.....	51,520	151.7	63,858	114.5
1870.....	57,635	169.7	75,119	134.7
1875.....	64,071	188.7	97,260	174.4
1880.....	72,178	212.6	109,242	195.9
1885.....	73,131	215.4	116,242	208.5
1886*.....	72,817	214.5	111,474	211.9

* The total in 1886 for the cheaper houses could be given fairly for only nine out of the ten, the tenth having been entirely rebuilt. In the figure indicating the per cent. of increase, allowance has been made for this.

We have at hand detailed calculations of the living expenses of two families in Brunswick, each consisting of six persons. One was the family of a workingman in fairly good circumstances; the other that of a government official not highly placed. The expenses are the general current expenses, including rents, fuel, and clothing, but not including outlays for education, medical attendance, amusements, or taxes. An exact detailed account is not given, but only an approximate statement, which, however, has the advantage of having been prepared without any bias or any social prejudice, and on the same method for the same place since the year 1850. (See "Betheiligung am Gewinn und National-Versorgung," by Dr. H. Scheffler, Brunswick, 1876. We have also later communications from the author.)

Years.	Workman's family.		Government official's family.	
	<i>Marks.</i>	<i>Per cent.</i>	<i>Marks.</i>	<i>Per cent.</i>
1850.....	794.40	100	1,120.50	100
1870.....	1,203.30	151	1,905.60	170
1875.....	1,395.00	176	2,181.30	195
1885.....	1,359.80	171	2,341.24	209

In regard to retail prices for the same years we are able to give, again on Dr. Scheffler's authority, the following statements:

	1850.	1870.	1875.	1885.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
Beef:				
Small..... pound.....	.30	.50	.55	.50
Large..... do.....	.35	.60	.65	.60 to .65
Veal:				
Small..... do.....	.25	.40	.50 to .60	.45
Large..... do.....	.35	.70	.70 to .75	.70 to .75
Pork..... do.....	.30	.60	.65 to .70	.60 to .70
Butter..... do.....	.50 to .60	1.00 to 1.40	1.15 to 1.50	.95 to 1.50
Flour..... cwt.....	10.00	20.00	16.00	15.00
Rye meal..... do.....	6.00	12.00	11 to 12	12.00
Eggs..... per shock (60).....	1.60	3.00	3.50 to 4.50	3.00 to 4.00
Milk..... per quart.....	.11	.14	.16	.16
House-maid's yearly pay.....	36 to 48	72 to 90	90 to 150	120 to 150
Washerwoman..... per day.....	1.00	1.25 to 1.50	1.50	1.75 to 2.00
Seamstresses..... do.....	.70	1.20 to 1.50	1.50	1.50 to 2.00
Unskilled laborer..... do.....	1.00	1.50	2.25 to 2.50	1.75 to 2.00
Mason..... do.....	1.45	2.15	3.50	3.20 to 3.50
Carpenter..... do.....	1.60	2.50	3.50	3.20 to 3.50
Two-horse carriage..... do.....	7	13	18	24

In England several attempts have been made to ascertain the changes in the general purchasing power of money, by referring to the average costs of supporting persons in the same manner in large institutions. As we shall deal in the present publication chiefly with prices at Hamburg, we insert statements of the average cost of support at a large institution at Hamburg, the General Hospital. We have to deal here with the support of about 700 persons per day, or 620,000 per year, and with a careful and economical administration, in which everything is bought on a large scale. In this institution the cost of board per person (patients and employés included) has been as follows since 1841:

Year.	Per day.	Per year.	Per cent.
	<i>Pfennigs.</i>	<i>Marks.</i>	
1841-'50.....	37.0	134.99	100.0
1851-'60.....	42.9	156.60	116.0
1861-'70.....	52.2	190.59	141.2
1871-'75.....	75.8	276.76	205.0
1876-'80.....	89.0	325.34	241.0
1881.....	89.7	327.44	242.4
1882.....	87.4	319.16	236.0
1883.....	86.2	314.48	233.7
1884.....	80.7	295.29	218.7
1885.....	75.0	273.68	202.7
1881-'85.....	83.8	306.01	226.6

It appears that the cost of board rose between the decade 1841-'50 and the year 1881 by more than 145 per cent. Since 1881 there has been a fall, though not a considerable one. Until 1870 the rise in price was a moderate one; thereafter it was rapid and great. A considerable part of the increase in expense is shown by the accounts to have arisen from the much higher prices of meat, milk, butter, etc. But this does not suffice to explain the extraordinary increase in expenses, which must be ascribed in part to the fact that the board has become better and more liberal since 1870. Yet, even if due allowance is made for this circumstance, the fact of a noteworthy increase in the rise of board from 1871 to 1883 is not to be denied.

The statements in the preceding paragraphs of the changes that have taken place in the cost of living, in wages, in salaries, etc., by no means pretend to give an exhaustive treatment of these matters. They are meant only to make clear that the statistics of the prices of commodities alone are by no means decisive of the question of a change in the purchasing power of gold. But they show clearly that the gradual changes in the standard of living of different classes have a great effect on the value of money, and perhaps deserve more attention than the wholesale prices of commodities. Yet we should not have a measure of changes of this kind, even if we had a series of statements showing the expenses of living for different families of the same position in life and of the same numbers, and even if we could make comparisons of such cases; for the money expenses of different classes for these purposes are not likely to increase or diminish in the same degree at different places and different times. One family perhaps spends 50 per cent. more than was spent by a family in essentially the same circumstances thirty or forty years ago, and is not conscious of incurring any unnecessary expense. Another family perhaps expends but 30 per cent. more; and there may be innumerable variations. How can we get a trustworthy average under such circumstances? Whatever method be adopted, notwithstanding the most complete statements

and the greatest care, it is impossible to get an expression in figures of the changes in the purchasing power of money. Yet it can not be doubted that the increase in the standard of living in almost every class in civilized countries has brought about a rise in money payments for personal services of every kind, and that this increase has taken place even in times when the wholesale prices of important commodities were failing.

An important circumstance, serving to explain the fall in wholesale prices while the cost of living was rising, or at least remained unchanged, is the cost of distribution; that is, the addition to prices in the course of jobbing and retail trade, which goes far to offset for consumers the cheapening of production.

A natural consequence of the state of things sketched in the last few pages is that the continued and considerable fall in the prices of commodities generally bears hard on men of business and on invested capital, and not on the workmen. Every one can observe this effect for himself, yet its eminent importance makes it worth while to present an unusually clear confirmation of the rule, brought out by a statistical compilation as complete and instructive as could be imagined.

The Belgian minister, Primez, published in September, 1884, a work entitled *La Crise ; Examen de la Situation Économique de la Belgique* (Brussels), at the close of which there is a table giving exact statements, compiled in the same manner year after year for the twenty-four years from 1860 to 1883, in regard to the production of coal in the province of Hainaut. Between 60,000 and 83,000 workmen are employed, and as many as 13,500,000 tons of coal are annually produced. Lack of space prevents us from giving the results for each year, and we must content ourselves with average statements for the three periods, 1860-'71, 1872-'76, 1877-'83. Letters which the author has been kind enough to send, enable us to present also the figures for the years 1884 and 1885.

Production of coal in Hainaut, 1860-'85.

Years.	Production.	Expenses.	Value.	Profit.	Cost, per 1,000 kilograms.		
					Labor.	Other expenses.	Total.
	Tons.	Francs.	Francs.	Francs.	Francs.	Francs.	Francs.
1860-'71.....	9,000,000	91,000,000	102,000,000	10,200,000	5.72	4.49	10.21
1872-'76.....	11,100,000	158,000,000	182,000,000	24,400,000	8.34	5.91	14.24
1877-'83.....	12,000,000	120,000,000	122,000,000	1,900,000	5.67	4.36	10.03
1884.....	13,500,000	115,500,000	129,600,000	4,700,000	5.32	3.93	9.25
1885.....	12,900,000	101,600,000	114,700,000	5,500,000	4.74	3.71	8.45

Years.	Selling price, per 1,000 kilograms.	Profit, per 1,000 kilograms.	Salaries.	Number of workmen.	Average salary per workman.	Proportion of labor in general production, less other expenses.
	Francs.	Francs.	Francs.		Francs.	Per 100.
1860-'71.....	11.33	1.12	57,000,000	65,000	797	83
1872-'76.....	16.38	2.12	95,000,000	79,000	1,173	82
1877-'83.....	10.18	.15	71,000,000	76,000	897	97
1884.....	9.59	.41	71,800,000	78,800	911	94
1885.....	8.88	.39	61,200,000	76,900	796	92

The figures of this table speak so plainly that there is hardly occasion to comment on them. The statements for single years bring out even

more clearly the remarkable changes resulting from the excessive rise of prices in the speculative period, 1871-'74, and from the low prices of recent years; yet the averages of longer periods are more significant of the actual course of events. If we compare the year 1885 with the decade 1860-'71, we find that the price of coal fell from 11.33 to 8.88 francs per 1,000 kilograms; that the profit sank from 1.12 francs to 0.39 francs per 1,000 kilograms; that wages, notwithstanding the reduction which became necessary in 1885, remained at the same point as in 1860-'71. Meanwhile the profits, inclusive of interest on capital, sank from 10,200,000 to 5,500,000 francs; and averaged during the years 1877-'83 only 1,900,000 francs. The share of labor in the total product, after deducting other expenses, was 83 per cent. in 1861-'70 and 92 per cent. in 1885. The depression of trade, whether the result of scarcity of gold, of overproduction, or of other causes, bears incomparably harder on capital and the business man than on wages and the workman.

We now leave the question of changes in the value of money in its relation to expenses of living, wages, etc., and come to an end with the digression which its discussion caused us to make into the closely related field of the social question. We turn to investigations of the prices of commodities. As we have seen, general prices are still treated in some quarters under the influence of the so-called *Quantitäts-Theorie*, while in other quarters it is considered quite independently of that theory. It is not within the scope of the present publication to express an opinion as to the soundness of one or the other of these views. Our task is simply to present impartially the different views, and the materials for understanding them.

In what has preceded and in what will follow we use the words "money" and "gold" indiscriminately. This does not really cause any uncertainty of meaning, since gold is directly or indirectly the sole measure of value in the wholesale trade of all commercial countries, even though the medium of exchange may consist of silver coins, and accounts may be kept in them.*

It has already been pointed out that both in domestic and in international transactions actual gold is little used, in comparison to the use of credit and bank clearings. But we should not fail to take account of the repeated and emphatic assertions that this substitute for gold is available only in ordinary times. In case of a future general crisis or shock to credit, we are told it would be impossible to conceive the intense demand for actual gold which would set in, and the downward pressure which would be exerted on prices. But it has also been pointed out that when such a catastrophe sets in, it makes little difference whether silver is a legal tender in addition to gold. At such times one must be prepared not only for a demand for the payment of bank notes, but for the payment of all debts payable on demand by banks. The total deposits alone in the ten London joint-stock banks amounted at the close of 1883 to £123,267,000, while these banks hold in their own vaults and in the Bank of England only £15,911,000 in cash. The total de-

* This is clearly expressed in the following remarks made by an English author: "There is no denying the fact that monetary systems may be called bi-metallic, or single silver; but the income of all nations within European control or influence, all wages, all manufactures, all the world's produce, come at last to be measured in value solely and inexorably against gold, and, infinitely more than all coins, against the unit of the one-pound sterling. * * * The relative value of all of the metals tends constantly to become the same at any given time in all commercial markets, without reference to which may be the legal standard in each particular market, so that, for example, the price of silver purchased with gold can never vary more than a minute fraction in Calcutta from the simultaneous price in London."

posits and accounts-current of the banks of the United Kingdom reached on the 1st of July, 1885, the colossal sum of between £570,000,000 and £580,000,000, whereas the Bank of England held only £27,481,488 of gold. Even if the metallic reserve of the Bank of England were to be doubled, or more than doubled, it would still be very small in comparison to the demand obligations in the United Kingdom which would all be thrown on the Bank of England. In crises of this kind, which fortunately are likely in the future to occur less frequently and to pass by more quickly, the only resource after all would be paper money inconvertible for the time being. It would be immaterial whether there were a gold standard, a double standard, or a silver standard.

Changes in general prices whose cause does not lie in the cost of production of commodities, or in the conditions of their supply and demand, but which are the result of a cause affecting the medium of exchange, as in the case of an excessive issue of inconvertible paper money, must affect in the long run all articles alike. It is immaterial whether the articles are sold in large or small quantities. Those changes in prices, however, which are caused by variations in the cost of production of commodities, must show great differences; and it is only when taken as a whole that they will show such an effect that we shall be able to judge whether there has been a change in the purchasing power of money. In the nature of the case, it is impossible to find a method by which we shall be able to infer, with exactness, from a specified number of commodities, changes in the general level of prices. Nothing more than approximate estimates can be secured.

The late Professor Jevons first proposed, in 1863, the following method: He began by calculating from quarterly prices the average prices of a series of important articles during the six years, 1845-'50. He assumed each average price to be 100, and on this basis made a percentage comparison of the prices of the same articles on the 1st of January or 1st of July of each year following. Mr. Newmarch, and the publishers of the *London Economist*, have continued these quotations and calculations of forty-seven articles up to the present time. The prices of a number of similar articles have been grouped together in making the percentage calculation, so that at the end twenty-two articles are left, for whose prices the so-called index numbers are calculated for comparison with the prices in 1845-'50. Adding up these twenty-two index numbers, and taking 2,200 as the basis for 1845-'50, we get the total index number, which serves to indicate yearly changes in the level of prices.

The articles included in the *Economist* list are: Coffee, sugar, rum, tea, tobacco, butter, wheat, potatoes, beef, mutton, pork, silk, flax, linen yarn, hemp, wool, logwood, indigo, sperm-oil, petroleum, timber, tallow, leather, saltpeter, potash, copper, iron, lead, steel, tin, coal, raw cotton, cotton yarn, cotton goods.

The authors of these index numbers did not fail to see the objections to their method, by which the simple addition of the comparative prices of articles of very unequal importance was made to measure changes in the general level of prices. The tables of index numbers in the *Economist* are regularly prefaced by the following note:

The total index number does not, of course, present a full and accurate representation of the variations in prices, inasmuch as it can not allow for the relative importance of the different articles. Wheat, for example, reckons for no more in the total index number than indigo; and during the years of the high price of cotton and cotton fabrics, the total index number is in a measure unduly raised by that special cause. Still the total index number, read with the needful qualification, may afford important inferences.

Mr. Hans Forsell, some time minister of finance in Sweden, differs from this judgment in his recently published work entitled, *Guldbristen och de laga Varuprisen* (Stockholm, 1886). On the contrary, he condemns emphatically the method of total index numbers, and all conclusions drawn from them, because they fail to take account of the relative importance of commodities. By adding or omitting a few important articles of commerce, the total index number might be made to rise or to fall according to the wishes of the compiler. The total index numbers, therefore, prove nothing whatever. Mr. Forsell thinks the extraordinary fluctuations in the prices of many articles can be explained from separate causes, which have no connection whatever with the purchasing power of gold.

Mr. Palgrave has endeavored to free the total index numbers, to which much weight is attached in England, from the objection that they fail to consider the relative importance of commodities, and has caused Mr. Nash to prepare for his Memorandum, already referred to, a new calculation of index numbers for the 22 articles of the Economist list. For the new index numbers the basis (100) is not taken for the years 1845-'50, but for the years 1865-'69. Mr. Nash illustrates the great importance of considering the relative importance of commodities by the example of wheat and indigo, which has been already alluded to. The value of the net import of indigo into England in 1885 was in round numbers £600,000. The value of the imported wheat and flour, plus that of the domestic production of wheat, was £49,350,000. Wheat, therefore, was an article eighty-two times as important as indigo, and a rise or fall of only 1 per cent. in the price of wheat, therefore, should have in a properly constructed table of index numbers the same importance as the rise or fall of 82 per cent. in the price of indigo.

Mr. Nash calculates for the years 1865-1885 the value of the quantity annually consumed of each of the 22 articles in the United Kingdom, and assigns a figure indicating its relative importance to each commodity. The results of this method will appear sufficiently from the following table for the years 1865, 1875, 1885:

Articles.	1865.		1875.		1885.	
	Consumption.	Index number.	Consumption.	Index number.	Consumption.	Index number.
Cotton	£47,000,000	428 (19.5)	£39,700,000	311 (14.1)	£31,600,000	263 (12.0)
Silk	6,300,000	57 (2.6)	2,100,000	17 (0.8)	1,400,000	12 (0.5)
Hemp	9,900,000	90 (4.1)	7,450,000	58 (2.6)	5,900,000	49 (2.2)
Flax and wool	18,400,000	168 (7.6)	21,300,000	167 (7.6)	17,100,000	142 (6.5)
Meat	44,300,000	405 (18.4)	55,500,000	435 (19.8)	63,000,000	524 (23.8)
Iron	12,000,000	109 (5.0)	16,200,000	127 (5.8)	18,000,000	150 (6.8)
Copper	4,800,000	44 (2.0)	4,650,000	37 (1.7)	4,680,000	39 (1.8)
Lead	2,100,000	19 (0.9)	3,100,000	24 (1.1)	1,550,000	13 (0.6)
Zinc	1,300,000	12 (0.5)	2,000,000	16 (0.7)	1,200,000	15 (0.7)
Timber	17,800,000	160 (7.3)	20,000,000	157 (7.1)	19,650,000	164 (7.5)
Tallow	5,100,000	47 (2.1)	3,950,000	31 (1.4)	3,340,000	28 (1.3)
Leather and hides	5,600,000	51 (2.3)	8,800,000	69 (3.1)	9,600,000	80 (3.6)
Indigo	200,000	2 (0.1)	300,000	2 (0.1)	600,000	5 (0.2)
Oils	5,500,000	50 (2.3)	4,900,000	38 (1.7)	5,900,000	49 (2.2)
Coffee	1,400,000	13 (0.6)	1,500,000	12 (0.6)	930,000	8 (0.4)
Sugar	11,000,000	100 (4.5)	21,000,000	165 (7.5)	17,920,000	149 (6.8)
Tea	7,300,000	66 (3.0)	11,100,000	87 (4.0)	8,500,000	71 (3.2)
Tobacco	2,600,000	24 (1.1)	2,500,000	20 (0.9)	3,500,000	29 (1.3)
Wheat and flour	39,000,000	355 (16.1)	54,300,000	427 (19.4)	49,350,000	410 (18.6)
Total	241,600,000	2,200 (100.0)	230,350,000	2,200 (100.0)	264,320,000	2,200 (100.0)

This Memorandum, moreover, contains a similar calculation of the changes in the prices of twenty-two articles in France, as reported in the French trade statistics. The relative importance of commodities is

taken into account, and the prices ascertained by the Commission Permanente des Valeurs are used. The articles selected are coffee, sugar, cereals, beef cattle, butter, rice, tobacco, linseed, palm-oil, tallow, silk, cotton, wool, hides, coal, iron, steel, copper, lead, zinc, and the following articles of export, silk goods, woolen goods, and gloves. It is true that only important articles are on this list, but the enormous difference in their relative importance is easily seen. For instance, for the year 1883 cereals are reckoned at 375,000,000 francs, wool at 318,000,000 francs, while zinc is put at 13,600,000 francs, and imported iron and steel at 27,100,000 francs. The quantity of each commodity produced at home is left entirely out of account. The years 1865-'69 were again used as the basis for this French calculation. The reason was that no figures for the period before 1869 exist for prices in India, with which a comparison was sought.

We now present the total index numbers of the level of general prices as ascertained by the various methods just described :

Years.	Total index numbers of Economist, without regard to relative importance of commodities.		Total index numbers of Economist, with regard to relative importance of commodities.		Total index numbers of French prices, with regard to relative importance of commodities.	
1865.....	2,434		2,366		2,331	
1866.....	2,449		2,434		2,380	
1867.....	2,156		2,179		2,144	
1868.....	1,982		2,058		2,110	
1869.....	1,979		1,963		2,015	
1865-'69.....	2,200	(100)	2,200	(100)	2,200	(100)
1870.....	1,995	91	1,975	90	2,000	91
1871.....	1,981	90	2,046	93	2,250	102
1872.....	2,132	97	2,107	100	2,310	105
1873.....	2,237	102	2,298	104	2,300	105
1874.....	2,207	100	2,373	108	2,125	97
1875.....	2,098	95	2,125	97	2,085	95
1876.....	2,044	93	2,186	99	2,090	95
1877.....	2,064	94	2,205	100	2,107	96
1878.....	1,910	87	2,081	95	2,010	91
1879.....	1,676	76	1,805	82	1,915	87
1880.....	1,918	87	1,967	89	1,937	88
1881.....	1,782	81	2,054	93	1,900	86
1882.....	1,830	83	1,908	87	1,855	84
1883.....	1,755	80	1,924	88	1,756	80
1884.....	1,660	75	1,750	80		
1885.....	1,550	70	1,669	76		

If we compare these tables, we are surprised to find that the index numbers reached by the different methods do not vary greatly from each other. The great fall in prices in the decade just passed comes out with equal clearness in all of them. We do not believe, however, that this agreement disposes of all criticism of the tables. These attempts to secure some degree of confidence in the approximate correctness of the index numbers, as modified by the consideration of the relative weight of commodities, are yet open to serious objections. Above all, it is said that the consideration of no more than twenty-two articles, however carefully they may have been selected, neglects a number of very important articles whose prices are of great importance when we try to determine the purchasing power of gold. Not less well founded is the objection that a great rise or fall in the price of a few important articles on the list, although caused by speculation and of only temporary duration, may exercise a great effect on the index number arrived at. For

the French figures, a closer examination shows that the relative weight of the twenty-two commodities has been assigned in a careless and misleading manner.

Our wish to secure room for a detailed presentation of the true average prices of one hundred important commodities in Hamburg in the years from 1847 to 1885, and the objections against the Economist's figures and other figures meant to indicate the general level of prices, induce us to omit in this edition of the Materials the detailed presentation of the Economist's tables, and to content ourselves with the summary tables given above.

We can not omit, however, from these Materials, in the present stage of the silver question, a statement of prices in India since the beginning of the depreciation of silver. But we are compelled to condense it. It is derived from the communications made by the India office to Mr. Palgrave and published by him in his Memorandum. The prices for ordinary rice and for wheat are the average prices of six places. Those of other articles are prices at the places of export. The prices of cotton is that of fair Dhollera at Bombay.

Years.	Rice ordinary.		Wheat.		Cotton.		Castor-oil.	
	Seers per rupee.	Index number.	Seers per rupee.	Index number.	Rupees per candy.	Index number.	Rupees per maund.	Index number.
1865-'69.....	18.63	100.00	15.56	100.00	263	100.00	11.61	100.00
1870.....	19.61	84.80	15.70	99.23	244	92.77	11.87	102.23
1871.....	20.99	72.22	22.12	70.43	209	79.46	11.56	99.56
1872.....	23.76	68.99	19.97	78.01	245	93.15	13.00	111.97
1873.....	20.85	79.76	18.98	82.08	203	77.18	12.40	106.80
1874.....	14.58	114.45	18.79	82.96	159	60.45	11.81	101.72
1875.....	17.59	94.54	23.13	67.35	167	63.50	9.26	79.75
1876.....	15.60	106.60	24.42	63.85	178	67.68	9.81	84.49
1877.....	15.63	106.59	18.91	82.39	192	78.00	13.56	118.79
1878.....	11.92	139.51	13.42	116.09	195	74.14	14.93	128.59
1879.....	12.52	132.82	14.67	108.20	224	85.17	12.87	110.85
1880.....	17.12	97.13	16.39	95.05	203	77.18	10.75	92.59
1881.....	22.28	74.64	18.57	83.89	188	71.48	10.18	87.68
1882.....	22.67	73.35	18.87	82.56	181	68.82	10.01	86.21
1883.....	18.05	92.13	18.96	82.17	174	66.16	10.78	92.85
1884.....	14.70	118.12	21.36	72.93	195	74.14	10.50	90.43
1880-'84.....	18.96	90.07	18.83	83.32	188	71.48	10.44	89.92

Years.	Linsced.		Jute.		Hides.		Fall in price of silver (com pared to gold).
	Rupees per maund.	Index number.	Rupees per bale.	Index number.	Rupees per corgo.	Index number.	
1865-'69.....	4.63	100.00	19.26	100.00	49.25	100.00	1,000.00
1870.....	4.30	92.87	26.25	136.25	56.50	114.72	965.03
1871.....	4.40	95.03	24.87	129.12	64.00	129.94	992.10
1872.....	4.76	102.78	21.32	110.69	61.75	125.38	976.14
1873.....	4.94	106.69	19.87	103.16	77.25	156.85	958.85
1874.....	4.75	102.59	22.87	118.74	81.76	165.98	950.49
1875.....	4.04	87.25	19.50	101.24	71.25	144.67	927.71
1876.....	4.16	89.84	22.25	115.52	70.50	143.14	879.79
1877.....	4.60	99.85	26.12	135.61	60.00	121.82	891.90
1878.....	4.92	106.26	27.25	141.53	64.00	129.94	849.16
1879.....	5.09	110.41	27.50	142.78	71.00	144.16	856.33
1880.....	4.59	90.13	28.25	146.67	78.00	158.87	856.11
1881.....	4.23	91.86	26.00	135.00	69.50	141.11	853.49
1882.....	3.76	81.20	19.03	98.80	66.00	134.01	837.61
1883.....	4.08	88.12	21.75	123.31	80.00	162.48	838.09
1884.....	4.20	90.71	20.50	106.43	79.50	161.42	828.31
1880-'84.....	4.17	90.06	23.51	122.06	74.60	151.45	842.72

Mr. Barbour, Secretary of Finance to the Indian Government, has given his attention, in the work already referred to (*The Theory of Bi-metallism*, 1886), to the movement of prices in India under the influence of the depreciation of silver. His investigations indicate that from 1873 to 1884 there was a slight temporary rise in the prices of articles of export in Calcutta, but that in 1885 a distinct fall set in. The silver prices of articles of import had not risen in India in proportion to the lower prices of silver, but, on the contrary, had fallen somewhat. For instance, 100 yards of gray piece goods, which had cost in the year 1874-'75 13 rupees 1 anna, cost in 1884-'85 10 rupees 8 annas. These statements referred to prices at the sea-ports. Whether prices in the interior had risen it was impossible to state exactly, in view of the extraordinary differences in the circumstances of the different parts of that enormous country. But it is certain that the wages of skilled labor, masons, carpenters, blacksmiths, etc., had risen everywhere.

We are indebted to the *Hamburg Prices Current for Money*, which were issued every Tuesday and Friday, for the complete and exact quotations which enabled us to ascertain month for month and year for year the ratio that existed in free markets between gold and silver during the 144 years from 1687 to 1830. We are similarly indebted to the *Official Trade Statistics of Hamburg* for material for ascertaining the annual wholesale prices of commodities from 1847-'85—material which is complete and trustworthy to a higher degree than any known to us.

Throughout this period Hamburg was an important market for almost all raw materials. Moreover, it has been a free port, without duties or differential taxes. Commodities imported are declared in writing, with a statement of their weight and of their ordinary trade designations. Their value is stated separately for each commodity, either according to its price on 'change that day, or, if there were no quotations, according to the probable price, which was to be, in the absence of other data, the purchase price plus the cost of importation. For consigned goods a careful estimate of the prices sufficed, sometimes supplemented with a statement of their insured value. These declarations, which were carefully supervised, were then collected by the Bureau of Trade Statistics, and tables were made out of the quantity and value of goods exported and imported.

In these tables we find the average prices for each year for a large number of articles (in 1885 for 318 articles), all based on the declarations mentioned. Prices are given not only for each article, but for each article according to the place whence imported. The quantities and kinds of many important articles undergo changes in the course of decades, and it seemed therefore proper to take no account of the different kinds of each article, but to treat all kinds as one, in order to get a general indication of the changes in prices. Some five years ago the bureau of trade statistics at Hamburg prepared, at our request, on the method of index numbers, a "Statement by per cents of the changes in five-year and ten-year periods of the average prices of 100 articles of trade, in the years from 1851-'80, compared with the average prices of the years 1847-'50." We published this statement, which has since been frequently cited, in our essay on "The statistics of the precious metals, 1876-'80," in the *Jahrbücher für National-Oekonomie*, new series, vol. iii.

It has been objected to this compilation that the period from 1847-'50 is used as the basis, whereas the decade from 1811-'50 would have been preferable. This may be freely admitted; and had we had a choice,

we should certainly have used the period 1841-'50 rather than that of 1847-'50. But for the period before 1851 we possess statements only for the four years preceding. A change in our initial year was therefore impossible.

Other objections to this compilation, however, which are directed against the selection of the articles, are not without foundation. It would lead us too far to discuss them here in detail. We have carefully gone through the list of articles again, and have excluded those for which the Hamburg wholesale prices are not fairly to be considered indicative of prices in general trade. Some articles now of importance can not be considered at all in this comparison, because they have come into general use since 1850; for instance, petroleum. Another essential change has been made in the compilation, in that a number of very important articles are now included in them for which the official declarations gave no figures. Their wholesale prices since 1877 have been ascertained from the yearly accounts of large institutions at Hamburg. This has been done especially for meat, butter, milk, and eggs. The prices of yarns and cloths, which were embraced in the earlier compilation from the Hamburg prices, have now been excluded, since the indirect influence of the German import duties on the importation of cheaper grades prevents the prices from indicating the general range of prices of such articles. In their place we have given corresponding average prices of yarns and cloths exported from England, as well as the prices of some other articles of manufacture, all derived from the British trade statistics.

The first edition of our Materials indicated the average prices not of each year, but of periods of several years, namely, 1851-'60, 1861-'70, 1871-'75, 1876-'80, 1881-'84. The wish has been expressed in several quarters that the tables should be completed by giving the average prices for each year, since such prices would serve to indicate more clearly and accurately the changes in the general level of prices and the movement of the prices of individual articles. We could not but admit that this wish had its justification, the more so as we have become convinced that the twenty-two index numbers of the English publications fulfill their object very insufficiently, and may be replaced with advantage by a more detailed statement of average prices at Hamburg.

The great importance of this statement of average prices lies in the general survey which it gives of the average prices of the most important articles continuously since 1851. Prices can be followed here, year for year, by themselves and in their connection with other prices, and moreover with assurance that they are not based upon estimates, but upon direct trustworthy declarations from men of business. In addition, we present, on the method of total index numbers, percentage calculations of changes in the level of general prices. We believe that these calculations have a good claim to approximate accuracy because of the large number of articles on which they are based; yet we are quite aware that our calculations, like others, must be used with every caution.

The Hamburg Bureau of Statistics, knowing the wide interest and great importance of the calculation of the movement of actual average prices per year of 114 important commodities during the period from 1851 to 1885, wished to present, so far as this could possibly be done, trustworthy figures and calculations. The Bureau, therefore, thought it desirable to submit earlier results, as they had been published in the annual tabular statements of the trade of Hamburg, and had been

printed in our first edition, to a thorough and detailed revision. The result has been that changes proved necessary or desirable only for occasional articles in single years; and such changes as were made, barring a few exceptional cases, were fairly to be considered irrelevant. For the sake of exactness, however, they have been used in this new and final compilation of the Hamburg prices, and will serve to explain variations from the figures of earlier publications.

The prices of various agricultural and animal products are perhaps not to be considered authoritative for wholesale trade in so high a degree as those for other articles. We therefore add a statement of the average prices of certain commodities of this kind in Prussia during the period from 1861 to 1885, obtained from the *Zeitschrift d. Kgl. Preuss. Statistischen Bureaus*, 1886, Heft I, II, besondere Beilage, p. 80.

[Per 100 kilograms.]

Years.	Wheat.	Rye.	Barley.	Oats.	Pota- toes.	Beef.	Pork.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
1861-'65.....	18.82	13.78	12.12	11.83	4.58	0.82	0.98
1866-'70.....	22.02	17.16	15.48	15.08	4.96	0.92	1.11
1871-'75.....	22.52	17.92	17.08	16.32	6.04	1.15	1.28
1876-'80.....	21.14	16.62	16.20	15.24	6.06	1.15	1.24
1881-'85.....	18.96	16.00	15.16	14.58	5.28	1.18	1.25
1881.....	22.00	20.20	16.60	15.80	5.70	1.14	1.28
1882.....	20.80	16.10	15.40	14.60	4.95	1.16	1.28
1883.....	18.50	14.70	14.60	13.70	6.15	1.20	1.28
1884.....	17.30	14.70	14.90	14.40	4.90	1.20	1.20
1885.....	16.20	14.30	14.30	14.30	4.60	1.19	1.20

It goes without saying that we do not mean to add comments on the fluctuations or permanent changes in the prices of the different articles during the last thirty-five years. To do this, we should have to write a complete history of trade during the last decades, such as would occupy, with all possible conciseness, too much space for the present publication. But remarks on certain particularly noticeable changes in the prices of important articles will be found at the close of the tables.

Average prices of 100 articles at Hamburg during the period from 1851 to 1885, compared to the average prices of the years 1847-'50, with corresponding index numbers, as ascertained by the Bureau of Trade Statistics at Hamburg.

I.—PRODUCTS OF AGRICULTURE.

Years.	(1) Wheat.		(2) Wheat flour.		(3) Rye.		(4) Rye flour.		(5) Oats.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
	Marks.		Marks.		Marks.		Marks.		Marks.	
1847-'50	19.44	100.00	28.92	100.00	12.24	100.00	14.85	100.00	11.16	100.00
1851	16.62	85.49	25.02	86.51	13.80	112.75	16.62	111.92	14.40	129.03
1852	17.40	89.51	27.42	94.81	14.40	117.65	20.77	139.19	13.62	122.04
1853	21.06	108.33	32.82	113.49	16.56	135.29	22.32	150.30	15.54	139.25
1854	30.18	155.25	41.28	142.74	21.48	175.49	27.42	184.65	18.00	161.29
1855	31.20	160.49	45.18	156.23	23.28	190.19	30.48	205.25	17.28	154.84
1851-'55	23.28	119.75	34.32	118.67	17.88	146.08	23.55	158.59	15.78	141.40
1856	29.28	150.62	42.00	145.23	21.54	175.98	28.62	192.73	16.68	149.46
1857	22.50	115.74	33.30	115.15	15.36	125.49	27.24	183.43	15.42	138.17
1858	18.48	95.06	28.56	98.75	13.68	111.76	22.80	158.54	14.40	129.03
1859	19.68	101.23	27.48	95.02	14.04	114.71	21.96	147.88	14.34	128.49
1860	23.04	118.52	32.46	112.24	15.90	129.90	21.42	144.24	15.06	134.95
1856-'60	22.62	116.36	32.76	113.28	16.08	131.37	24.42	164.44	15.18	136.02
1861	24.60	126.51	34.92	126.75	15.66	127.94	23.88	160.81	14.64	131.18
1862	23.10	118.83	31.56	109.13	16.98	138.73	22.92	154.34	13.68	122.58
1863	19.92	102.47	26.88	92.95	15.30	125.00	19.08	128.48	11.64	104.30
1864	16.68	85.80	24.80	85.06	12.18	99.51	16.38	110.30	13.20	118.28
1865	17.28	88.89	25.50	88.17	13.62	111.27	17.88	120.40	15.42	138.17
1861-'65	20.34	104.63	28.68	99.17	14.76	120.59	20.04	134.95	13.74	123.12
1866	20.34	104.63	29.28	101.24	15.42	125.98	21.96	147.88	15.72	140.88
1867	28.44	146.30	34.96	120.95	21.30	174.02	26.34	177.37	17.10	153.23
1868	27.30	140.43	33.12	114.52	20.94	171.08	25.98	174.85	18.30	163.98
1869	30.88	157.41	30.06	103.94	17.58	143.63	21.06	141.82	17.52	156.99
1870	20.10	103.39	29.76	102.90	15.66	127.94	21.72	146.26	14.54	130.29
1866-'70	23.40	120.37	31.44	108.71	18.18	148.53	23.40	157.58	16.63	148.92
1871	23.96	123.25	31.90	110.30	18.70	152.78	21.32	143.57	15.58	139.61
1872	24.92	128.19	34.42	119.02	15.82	129.25	21.94	154.48	15.02	134.59
1873	25.94	133.44	36.52	126.28	18.16	148.37	25.16	169.43	16.50	147.85
1874	23.32	119.96	34.56	119.50	18.48	150.98	25.26	170.10	18.48	165.59
1875	20.50	105.45	28.38	96.13	16.64	135.95	22.70	152.86	17.68	158.42
1871-'75	23.72	122.02	33.16	114.66	17.56	143.46	23.48	158.11	16.66	149.28
1876	21.24	109.26	29.62	102.42	17.20	140.52	24.06	162.02	17.44	156.27
1877	24.32	126.10	31.54	109.06	17.72	144.77	23.94	161.21	16.88	151.25
1878	21.42	110.19	31.34	108.37	14.32	118.99	22.26	149.90	14.41	129.39
1879	21.36	109.68	31.46	108.78	14.50	118.46	21.50	144.78	14.06	125.99
1880	21.74	111.83	31.67	109.51	18.37	150.08	25.33	170.57	14.85	133.07
1876-'80	22.02	113.27	31.13	107.61	16.42	134.15	23.42	157.71	15.53	139.16
1881	22.21	114.25	33.32	115.21	19.76	161.44	25.66	172.79	15.75	141.18
1882	20.43	105.09	32.03	110.75	16.07	131.29	21.09	142.02	15.52	139.07
1883	18.66	95.99	28.87	99.80	14.48	118.30	17.97	121.01	13.74	123.12
1884	16.78	86.32	24.50	84.72	13.97	114.13	18.02	121.35	13.74	123.12
1885	15.83	78.66	22.67	78.39	12.21	99.76	16.82	113.27	13.79	123.67
1881-'85	18.68	96.09	28.28	97.79	15.30	125.00	19.91	134.07	14.51	130.02

Average prices of 100 articles at Hamburg, etc.—Continued.

I.—PRODUCTS OF AGRICULTURE—Continued.

Years.	(6) Barley.		(7) Malt.		(8) Buckwheat.		(9) Peas.		(10) Beans.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 14.34	100.00	Marks. 20.16	100.00	Marks. 12.84	100.00	Marks. 12.90	100.00	Marks. 21.24	100.00
1851	12.00	83.68	14.23	70.54	10.20	79.44	11.58	89.37	26.58	125.14
1852	15.18	105.86	22.20	110.12	14.58	113.55	13.20	102.33	26.40	124.29
1853	14.82	103.35	21.36	105.95	19.48	143.93	17.46	135.35	32.34	152.26
1854	18.78	130.96	22.32	110.71	18.84	146.73	18.84	146.05	27.90	131.36
1855	18.24	127.20	20.28	145.24	18.66	145.33	18.78	145.58	33.18	154.21
1851-'55	18.78	110.04	21.90	108.63	16.14	125.70	15.96	123.72	29.28	137.65
1856	19.62	136.23	30.18	149.70	18.60	144.86	14.10	109.30	27.24	128.25
1857	17.70	123.43	27.54	136.61	17.04	132.71	18.00	139.53	22.92	107.91
1858	14.82	103.35	25.02	124.11	15.06	117.29	17.82	138.14	24.00	112.99
1859	15.96	111.30	21.24	105.86	12.72	99.07	17.40	134.88	24.54	115.54
1860	16.98	118.41	21.60	107.14	15.18	118.22	17.82	138.14	25.20	118.64
1856-'60	17.04	118.83	25.14	124.70	15.72	122.43	17.04	132.09	24.78	116.67
1861	16.98	118.41	24.54	121.73	15.06	121.96	17.64	136.74	25.26	118.93
1862	16.32	113.81	22.68	112.50	14.80	115.26	17.88	138.00	24.48	115.25
1863	15.24	105.28	22.38	111.01	13.44	104.67	14.40	111.63	21.84	102.82
1864	13.32	92.89	19.74	97.92	13.90	107.48	12.90	100.00	23.16	108.94
1865	15.78	110.04	18.72	92.86	18.92	108.41	15.06	116.74	26.76	125.99
1861-'65	15.54	108.37	21.60	107.14	14.84	111.68	15.60	120.93	24.30	114.41
1866	18.90	131.80	28.08	139.29	14.83	115.42	17.64	136.74	25.92	122.03
1867	19.92	138.91	29.52	146.43	15.72	122.43	18.72	145.12	25.56	120.34
1868	21.16	147.56	27.36	135.71	18.48	143.93	20.58	150.53	27.18	127.97
1869	20.52	143.10	26.46	131.25	17.94	139.72	18.72	145.12	24.12	113.56
1870	16.20	112.87	23.40	116.07	16.56	128.97	17.40	134.88	27.36	128.61
1866-'70	19.32	134.73	26.94	133.63	16.68	129.91	18.60	144.19	26.04	122.69
1871	18.34	127.89	24.04	119.25	15.98	124.45	18.26	141.55	24.38	114.78
1872	21.90	152.72	26.58	131.85	16.14	125.70	18.96	149.98	24.82	116.85
1873	22.82	159.14	28.64	142.06	17.68	137.69	22.26	172.56	38.80	135.59
1874	22.14	154.39	32.60	161.71	17.76	138.32	21.12	163.72	26.74	125.89
1875	21.84	152.30	30.00	148.81	17.04	132.71	20.68	160.31	23.76	111.86
1871-'75	21.40	149.23	28.38	140.77	16.92	131.78	20.26	157.05	25.70	121.09
1876	19.50	135.98	29.24	145.04	19.42	151.25	20.80	161.24	23.00	108.29
1877	20.94	146.02	29.82	147.92	17.88	135.10	20.12	155.97	23.36	119.40
1878	20.12	140.73	29.90	148.31	16.18	126.01	19.08	147.91	22.52	105.94
1879	21.90	152.72	28.42	140.97	17.28	134.58	19.34	149.92	24.30	114.41
1880	21.18	147.70	30.52	151.39	18.48	143.93	20.06	155.50	26.53	124.91
1876-'80	20.74	144.63	29.58	146.73	17.84	138.94	19.88	154.11	24.30	114.41
1881	20.89	145.68	29.84	148.02	16.47	128.27	20.89	161.94	26.12	122.96
1882	19.90	138.77	28.88	143.25	17.16	133.64	21.10	163.57	24.81	116.21
1883	17.37	121.12	28.82	142.96	21.60	169.78	18.42	142.79	25.19	118.60
1884	16.13	112.48	29.45	146.08	15.32	119.31	18.43	142.87	24.67	116.15
1885	14.29	99.65	27.72	137.50	16.27	126.71	17.68	137.05	23.62	111.21
1881-'85	17.72	123.57	28.94	148.55	17.40	135.51	19.30	149.61	24.88	117.16

Average prices of 100 articles at Hamburg, etc.—Continued.

I.—PRODUCTS OF AGRICULTURE—Continued.

Years.	(11) Potatoes.*		(12) Hops.		(13) Clover-seed.		(14) Rape-seed.		(15) Rape-seed oil.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 5.55	100.00	Marks. 89.76	100.00	Marks. 65.22	100.00	Marks. 25.92	100.00	Marks. 72.54	100.00
1851.....	4.50	82.16	134.40	149.78	73.68	112.97	22.03	84.95	63.42	87.48
1852.....	4.96	89.37	151.20	168.45	86.70	132.93	23.82	91.90	66.60	91.81
1853.....	6.47	116.58	196.08	218.45	97.14	148.94	28.68	110.15	68.16	93.96
1854.....	6.02	124.68	262.12	314.30	109.33	167.63	29.58	114.12	88.82	115.55
1855.....	7.16	129.01	216.54	241.24	112.47	172.45	43.03	165.97	106.86	147.31
1851-'55	6.01	108.29	196.08	218.45	95.88	147.01	29.40	113.43	77.76	107.20
1856.....	7.27	130.99	125.82	140.17	125.10	191.81	36.54	140.97	95.58	131.76
1857.....	4.96	89.37	129.78	144.59	116.49	178.61	33.18	138.01	96.20	132.75
1858.....	8.00	60.49	119.16	132.75	110.58	169.55	33.34	124.77	80.04	110.24
1859.....	4.16	74.93	166.26	183.23	119.67	182.49	26.64	102.78	71.58	96.08
1860.....	6.11	110.09	298.32	332.35	109.41	167.76	29.52	113.89	79.60	116.01
1856-'60	5.31	95.68	167.88	187.03	116.23	178.20	31.62	121.99	84.66	116.71
1861.....	7.62	137.30	198.90	221.59	104.40	160.07	30.42	117.36	76.44	105.28
1862.....	4.85	87.39	153.54	171.06	98.88	151.61	35.22	135.88	89.88	123.90
1863.....	4.79	86.31	203.10	226.27	95.52	146.46	31.20	130.37	85.14	117.37
1864.....	5.19	93.51	232.60	259.36	93.72	143.70	31.62	121.99	79.88	106.43
1865.....	5.25	94.60	253.44	282.35	133.32	204.42	33.60	129.63	83.28	114.81
1861-'65	5.54	99.82	208.38	232.15	105.18	161.27	32.40	125.00	82.60	114.14
1866.....	5.54	99.82	328.76	364.04	127.56	195.58	30.18	116.44	84.68	116.71
1867.....	7.04	126.95	261.73	291.58	145.80	223.55	29.82	115.05	72.28	90.75
1868.....	5.94	107.03	185.10	206.22	115.40	178.91	27.42	105.70	66.00	90.98
1869.....	5.65	101.80	164.40	183.16	98.88	151.61	31.32	120.83	69.48	95.78
1870.....	5.62	101.26	186.48	207.75	115.56	177.18	34.86	134.49	89.10	122.83
1866-'70	5.96	107.39	224.88	250.53	120.66	183.00	30.72	118.52	76.32	105.21
1871.....	6.30	113.51	288.00	320.80	131.54	201.60	36.74	141.74	80.68	111.22
1872.....	6.60	118.92	280.98	313.03	122.74	188.19	31.78	122.62	74.82	103.14
1873.....	6.59	118.74	285.24	315.55	102.34	156.92	28.04	108.18	63.84	88.01
1874.....	7.15	128.83	382.14	425.73	104.20	165.60	25.60	94.77	66.26	91.24
1875.....	6.65	119.82	289.06	322.04	112.64	172.71	29.06	112.11	65.64	90.49
1871-'75	6.66	120.00	304.68	339.44	115.50	177.09	30.24	116.67	70.24	96.83
1876.....	6.72	121.08	278.22	309.99	136.80	209.75	31.22	120.45	68.68	94.54
1877.....	7.70	138.74	252.94	280.79	189.40	213.74	33.12	127.78	74.50	102.70
1878.....	7.48	134.41	195.54	217.85	111.64	171.17	29.82	113.12	67.74	93.88
1879.....	7.90	142.34	240.88	268.86	102.54	157.22	26.54	102.89	59.48	81.97
1880.....	7.78	140.18	234.72	261.50	105.95	162.45	23.96	92.44	57.40	79.13
1876-'80	7.51	135.32	240.28	267.69	119.27	182.86	28.83	111.23	65.54	90.35
1881.....	6.25	112.61	229.41	255.58	99.04	151.85	27.94	107.80	58.62	80.81
1882.....	5.06	91.17	370.50	412.77	103.64	158.91	29.52	113.89	68.13	80.14
1883.....	6.15	110.81	464.23	517.19	130.77	200.60	30.85	119.02	71.58	93.68
1884.....	5.64	101.62	312.77	348.45	113.38	173.84	24.81	95.72	64.27	86.00
1885.....	5.47	98.56	218.11	242.99	101.43	155.52	23.39	90.24	54.09	74.57
1881-'85	5.71	102.88	319.00	355.39	109.65	168.12	27.30	105.32	61.34	84.56

* For articles marked with an asterisk (*) the prices are those paid by Hamburg institutions (hospitals, etc.) for large purchases.

PRODUCTION OF THE PRECIOUS METALS.

Average prices of 100 articles at Hamburg, etc.—Continued.

I.—PRODUCTS OF AGRICULTURE—Continued.

Years.	(16) Linseed-oil.		(17) Oil-cake.		(18) Raw sugar.		(19) Refined sugar.		(20) Spirits from grain or potatoes.		(1-20.) Total.
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per hecto.	Index No.	
1847-'50...	Marks 58.38	100.00	Marks 9.36	100.00	Marks 45.66	100.00	Marks 56.82	100.00	Marks 31.57	100.00	100.00
1851.....	66.42	112.77	8.22	87.82	42.60	93.30	52.02	91.55	32.35	102.47	99.00
1852.....	60.42	103.49	9.00	96.15	40.88	88.44	50.82	89.44	45.10	142.86	110.71
1853.....	61.56	105.45	10.68	114.10	46.44	101.71	56.82	100.00	52.51	166.33	128.18
1854.....	75.60	129.50	12.06	128.85	47.52	104.07	55.56	97.78	72.00	228.06	150.49
1855.....	80.10	137.20	13.86	148.08	49.74	108.94	66.54	117.11	70.25	222.52	158.82
1851-'55...	68.82	117.88	10.74	114.74	45.86	99.34	56.34	99.16	58.11	184.07	129.99
1856.....	78.42	134.33	13.08	139.74	64.14	140.47	77.34	136.11	66.70	211.28	149.03
1857.....	79.80	136.69	13.14	140.88	72.54	158.87	89.10	156.81	54.26	171.87	138.11
1858.....	64.98	110.28	13.32	142.31	53.04	116.16	73.68	129.67	35.37	112.04	119.92
1859.....	59.88	102.57	11.82	126.28	52.03	118.03	70.02	123.23	39.47	125.02	119.48
1860.....	59.58	102.06	10.68	114.10	53.82	117.87	67.68	119.11	46.52	147.36	133.75
1856-'60...	68.40	117.16	12.42	132.69	50.10	129.43	76.54	132.95	46.96	148.75	131.84
1861.....	83.10	111.51	10.62	113.46	44.56	97.63	67.14	118.16	51.04	161.67	131.46
1862.....	79.20	135.66	13.26	141.67	44.40	97.24	63.72	112.14	44.33	140.42	126.60
1863.....	86.22	147.69	12.84	137.18	44.04	96.45	62.64	110.24	39.51	124.52	120.12
1864.....	76.32	130.73	11.40	121.79	54.48	119.32	72.12	126.93	39.37	124.71	117.69
1865.....	70.44	120.66	15.12	161.54	45.86	99.34	61.74	108.66	35.58	112.70	126.48
1861-'65...	73.48	129.29	12.66	135.26	46.56	101.97	65.46	115.21	41.05	130.03	124.46
1866.....	80.16	137.31	12.60	134.62	43.50	95.27	63.12	111.09	36.66	116.12	137.64
1867.....	77.04	131.96	12.60	134.62	44.04	96.45	63.48	111.72	47.67	151.00	146.58
1868.....	69.18	118.50	15.90	168.87	47.28	103.55	67.14	118.16	48.98	165.15	141.59
1869.....	64.62	110.69	15.78	168.59	54.72	119.84	71.76	126.29	45.12	142.92	132.40
1870.....	66.66	114.18	16.32	174.86	51.96	118.80	68.82	121.12	59.54	125.25	131.23
1866-'70...	71.52	122.51	14.64	156.41	48.30	105.78	66.84	117.63	43.17	136.74	137.74
1871.....	70.10	120.09	15.10	161.32	72.98	159.83	74.40	130.94	43.12	136.59	144.76
1872.....	72.22	123.71	17.36	185.47	53.00	116.08	75.86	133.51	43.92	139.12	144.17
1873.....	69.96	119.84	15.08	161.11	51.24	112.22	70.38	123.86	46.52	147.36	146.21
1874.....	63.28	104.39	14.82	158.33	50.36	110.29	64.98	114.36	46.65	147.77	150.99
1875.....	53.80	92.15	16.08	171.79	46.30	101.40	62.06	109.22	36.23	114.76	138.16
1871-'75...	65.88	112.85	15.68	167.52	54.78	119.97	69.54	122.39	43.40	137.79	144.90
1876.....	56.16	96.20	16.28	173.93	47.88	104.86	61.14	107.60	34.87	110.45	141.06
1877.....	61.60	105.52	16.06	171.58	56.38	123.48	68.98	121.40	38.30	121.32	145.34
1878.....	59.10	101.23	16.94	180.98	55.58	121.73	61.30	107.88	39.55	125.28	132.50
1879.....	57.84	99.08	15.46	165.17	51.24	112.22	57.56	101.30	40.87	127.87	132.92
1880.....	60.05	102.86	15.06	160.90	51.21	112.16	60.33	106.18	46.05	145.87	138.11
1876-'80...	58.95	100.98	15.96	170.51	52.46	114.89	61.86	108.87	40.73	129.01	138.12
1881.....	58.06	99.45	15.53	165.92	50.57	110.75	59.50	104.72	46.97	148.78	137.50
1882.....	54.81	93.88	14.94	159.62	49.37	108.18	58.02	102.11	39.20	124.17	138.45
1883.....	49.93	85.53	13.98	149.26	46.57	101.99	55.85	98.29	41.57	131.66	143.33
1884.....	46.01	78.81	13.25	141.56	36.66	80.29	46.79	82.35	37.62	119.16	123.85
1885.....	49.55	84.87	12.22	130.56	26.59	58.23	38.82	68.32	33.28	105.26	110.76
1881-'85...	51.67	88.51	13.98	149.36	41.95	91.87	51.80	91.17	39.72	125.82	139.77

PRODUCTION OF THE PRECIOUS METALS.

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Average prices of 100 articles at Hamburg, etc.—Continued.

II.—ANIMAL AND FISH PRODUCTS.

Years.	(21) Beef.*		(22) Veal.*		(23) Mutton.*		(24) Pork.*		(25) Milk.*	
	Per kilo.	Index No.	Per kilo.	Index No.	Per kilo.	Index No.	Per kilo.	Index No.	Per liter.	Index No.
1847-'50	Marks. .72	100.00	Marks. .81	100.00	Marks. .93	100.00	Marks. .86	100.00	Marks. .07	100.00
1851.....	.64	88.89	.70	86.42	.95	102.15	.99	115.12	.067	95.71
1852.....	.58	80.56	.64	79.01	.95	102.15	.99	115.12	.067	95.71
1853.....	.62	86.11	.72	88.89	.95	102.15	.99	115.12	.067	95.71
1854.....	.65	90.28	.74	91.36	.95	102.15	.99	115.12	.067	95.71
1855.....	.79	109.72	.86	106.17	.95	102.15	1.10	127.91	.067	95.71
1851-'55 .....	.65	90.28	.72	88.89	.95	102.15	1.04	120.93	.07	100.00
1856.....	.76	105.56	.83	102.47	.95	102.15	1.06	123.26	.067	95.71
1857.....	.72	100.00	.82	101.23	.95	102.15	1.01	117.44	.067	95.71
1858.....	.72	100.00	.82	101.23	.95	102.15	.96	111.63	.067	95.71
1859.....	.65	90.28	.74	91.36	.95	102.15	.90	104.65	.067	95.71
1860.....	.62	88.11	.72	88.89	.95	102.15	.94	109.30	.067	95.71
1856-'60 .....	.69	95.83	.79	97.53	.95	102.15	.97	112.79	.07	100.00
1861.....	.69	95.83	.74	91.36	.95	102.15	.94	109.30	.06	85.71
1862.....	.79	109.72	.82	101.23	1.05	112.90	1.05	122.09	.07	100.00
1863.....	.77	106.94	.79	97.53	1.06	113.98	1.05	122.09	.06	85.71
1864.....	.80	111.11	.83	102.47	1.06	113.98	1.05	122.09	.06	85.71
1865.....	.88	122.22	1.02	125.93	.83	89.25	1.03	122.09	.11	157.14
1861-'65 .....	.79	109.72	.84	103.70	.99	106.45	1.03	119.77	.07	100.00
1866.....	.96	133.33	1.04	128.40	1.00	107.53	.97	112.79	.10	142.86
1867.....	1.02	141.67	1.04	128.40	.99	106.45	.93	108.14	.10	142.86
1868.....	.98	136.11	1.07	132.10	1.01	108.60	1.01	117.44	.11	157.14
1869.....	1.00	138.89	1.05	129.63	1.05	112.90	1.12	130.23	.11	157.14
1870.....	1.00	138.89	1.02	125.93	1.11	119.35	1.05	122.09	.10	142.86
1866-'70 .....	.99	137.50	1.04	128.40	1.03	110.75	1.02	118.60	.10	142.86
1871.....	1.08	150.00	1.11	137.04	1.18	126.88	.93	108.14	.10	142.86
1872.....	1.10	152.78	1.24	153.09	1.49	160.22	1.07	124.42	.12	171.43
1873.....	1.22	169.44	1.24	153.09	1.08	116.13	1.18	137.21	.12	171.43
1874.....	1.19	165.28	1.36	170.37	1.22	131.18	1.095	127.83	.12	171.43
1875.....	1.17	162.50	1.205	148.77	1.31	140.86	1.17	136.05	.14	200.00
1871-'75	1.15	159.72	1.24	153.09	1.26	135.48	1.09	126.74	.12	171.43
1876.....	1.23	170.83	1.44	177.78	1.52	163.44	1.09	126.74	.13	185.71
1877.....	1.25	173.61	1.52	187.65	1.49	160.22	1.10	127.91	.14	200.00
1878.....	1.245	172.92	1.45	179.01	1.45	155.91	1.02	118.60	.14	200.00
1879.....	1.14	158.33	1.38	170.37	1.40	150.54	1.00	116.28	.13	185.71
1880.....	1.21	168.06	1.41	174.07	1.43	153.76	1.14	132.56	.12	171.43
1876-'80	1.22	169.44	1.44	177.78	1.46	156.99	1.07	124.42	.13	185.71
1881.....	1.09	151.39	1.46	180.25	1.45	153.91	1.24	144.19	.12	171.43
1882.....	1.18	163.89	1.47	181.48	1.51	162.37	1.16	134.88	.12	171.43
1883.....	1.19	165.28	1.51	186.42	1.62	174.19	1.09	126.74	.12	171.43
1884.....	1.16	161.11	1.52	187.65	1.46	156.99	1.01	117.44	.12	171.43
1885.....	1.08	150.00	1.50	185.19	1.32	141.94	1.01	117.44	.12	171.43
1881-'85	1.14	168.33	1.49	188.95	1.47	158.06	1.10	127.91	.12	171.43

PRODUCTION OF THE PRECIOUS METALS.

Average prices of 100 articles at Hamburg, etc.—Continued.

II.—ANIMAL AND FISH PRODUCTS—Continued.

Years.	(26) Butter.*		(27) Cheese.		(28) Tallow.		(29) Lard.		(30) Hides.	
	Per kilo.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 1.20	100.00	Marks. 79.68	100.00	Marks. 82.14	100.00	Marks. 93.12	100.00	Marks. 82.35	100.00
1851.....	1.22	101.67	78.42	98.42	70.20	85.46	100.63	108.05	80.39	107.25
1852.....	1.22	101.67	82.20	103.16	78.18	95.18	106.38	114.24	84.21	101.63
1853.....	1.54	128.33	91.92	115.36	97.68	118.92	115.20	123.71	102.06	122.17
1854.....	1.67	139.17	101.58	127.48	118.20	143.90	116.22	124.81	109.17	130.98
1855.....	1.74	145.00	107.40	134.79	108.18	181.70	117.00	125.64	112.51	124.00
1851-'55	1.45	120.83	92.28	115.81	94.50	115.05	111.06	119.27	97.68	117.19
1856.....	1.93	180.83	104.52	131.17	103.68	126.22	121.92	180.93	129.02	154.79
1857.....	1.86	155.00	108.66	136.37	108.60	122.21	126.18	135.56	173.21	207.61
1858.....	1.95	182.50	104.46	131.10	95.70	116.51	104.76	112.50	118.08	141.67
1859.....	1.84	153.33	103.50	129.80	105.78	128.78	103.56	111.21	134.79	161.72
1860.....	1.90	165.83	107.76	135.24	107.22	130.63	112.98	121.33	143.09	171.67
1856-'60	1.91	159.17	105.78	132.76	104.22	126.88	113.88	122.29	142.60	170.97
1861.....	1.71	142.50	98.92	124.15	102.96	125.35	107.16	115.06	120.13	144.12
1862.....	1.66	138.33	98.10	123.12	92.82	113.00	88.86	95.43	115.62	138.72
1863.....	1.56	130.00	108.30	135.92	82.14	100.00	75.78	81.38	102.18	123.79
1864.....	1.80	150.00	108.02	129.29	78.36	95.40	97.56	104.77	106.34	127.68
1865.....	1.95	182.50	105.48	132.38	83.10	101.17	134.46	144.39	99.60	118.60
1861-'65	1.74	145.00	102.72	128.92	87.90	107.01	100.74	108.18	108.97	136.74
1866.....	1.91	159.17	111.18	139.53	82.38	100.29	118.80	127.58	99.48	118.35
1867.....	1.76	146.67	114.96	144.28	92.34	112.42	104.10	111.79	103.88	124.03
1868.....	2.17	180.83	109.02	136.82	89.70	109.20	124.02	133.18	115.90	138.93
1869.....	2.14	178.33	115.68	145.18	89.40	108.64	129.72	139.30	105.00	125.97
1870.....	1.88	156.67	110.16	138.25	88.56	107.83	125.16	134.41	112.88	124.83
1866-'70	1.97	164.17	112.20	140.81	88.50	107.74	120.36	129.25	107.22	128.64
1871.....	2.04	170.00	114.20	143.32	87.90	107.01	102.50	110.07	129.96	155.92
1872.....	1.99	165.83	128.40	161.14	86.50	105.31	80.82	86.79	151.56	181.64
1873.....	2.28	190.00	128.32	161.05	84.22	102.53	86.52	92.91	156.48	187.74
1874.....	2.59	215.83	126.84	159.18	82.46	100.39	105.96	113.79	148.72	178.43
1875.....	2.40	200.00	127.56	160.00	87.02	105.95	122.18	131.21	136.28	163.50
1871-'75	2.26	188.33	125.06	156.95	85.62	104.24	99.60	106.96	144.60	173.49
1876.....	2.61	217.50	128.28	160.09	87.92	107.04	111.80	120.06	111.60	132.69
1877.....	2.34	195.00	139.04	174.50	85.92	104.60	97.92	105.15	112.94	135.50
1878.....	2.19	182.50	123.16	154.57	81.70	99.46	78.04	83.81	104.68	125.60
1879.....	2.02	168.83	115.96	145.53	70.98	86.41	72.74	78.11	104.24	125.06
1880.....	2.32	193.33	120.25	150.92	69.60	84.73	84.08	90.29	116.90	140.25
1876-'80	2.30	191.67	125.84	157.30	79.22	96.45	88.92	95.49	110.07	132.06
1881.....	2.41	200.83	122.42	153.64	73.83	89.88	112.12	120.40	119.23	143.05
1882.....	2.40	200.00	114.18	143.30	87.04	105.97	116.72	125.34	116.82	140.16
1883.....	2.30	191.67	117.74	147.77	89.81	109.34	98.97	106.28	117.14	140.54
1884.....	2.28	190.00	114.92	144.23	75.88	92.38	80.25	86.18	117.26	140.68
1885.....	2.12	176.67	103.77	130.23	69.81	84.99	67.95	72.97	117.80	141.33
1881-'85	2.30	191.67	114.61	143.84	79.27	96.50	95.20	102.24	117.65	141.15

Average prices of 100 articles at Hamburg, etc.—Continued.

II.—ANIMAL AND FISH PRODUCTS—Continued.

Years.	(31) Calf-skins.		(32) Leather.		(33) Horse-hair.		(34) Bristles.		(35) Feathers.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 156.00	100.00	Marks. 263.88	100.00	Marks. 276.48	100.00	Marks. 354.06	100.00	Marks. 160.50	100.00
1851.....	162.00	104.23	302.86	114.99	376.20	136.07	412.63	116.54	174.18	108.52
1852.....	139.88	89.35	305.96	116.17	291.60	105.47	426.00	120.32	185.22	115.40
1853.....	167.10	107.12	294.47	100.41	377.70	136.61	494.82	139.76	186.54	116.22
1854.....	211.44	135.54	285.58	106.48	338.86	122.57	625.56	176.68	168.24	104.82
1855.....	208.46	130.42	338.17	125.40	263.88	95.44	486.16	137.08	188.76	117.61
1851-'55	176.82	113.35	316.00	120.22	339.64	119.23	486.18	138.16	180.60	112.52
1856.....	239.58	158.58	371.89	141.20	417.48	151.00	422.16	119.23	184.02	114.66
1857.....	294.06	188.50	428.97	162.87	457.38	165.43	484.86	136.94	180.00	112.16
1858.....	207.00	132.60	370.11	140.52	387.84	140.28	448.04	125.13	175.26	109.20
1859.....	286.74	179.96	414.12	157.23	416.64	150.69	448.50	126.67	178.82	111.19
1860.....	314.08	200.69	487.81	166.28	400.80	144.97	634.02	179.07	164.28	102.36
1856-'60	206.88	171.08	410.32	155.79	416.04	150.48	486.54	137.42	176.40	109.94
1861.....	239.82	153.73	370.22	140.56	340.38	123.11	475.50	134.30	165.72	103.26
1862.....	225.00	144.23	405.34	158.90	338.22	122.33	466.62	131.79	175.06	109.06
1863.....	250.32	160.46	409.78	155.57	346.14	125.20	372.06	105.08	165.30	102.99
1864.....	275.28	176.46	437.41	166.08	321.90	116.48	532.92	150.52	156.54	97.53
1865.....	265.96	170.50	429.00	162.68	363.00	109.59	503.64	142.25	172.44	107.44
1861-'65	251.28	161.08	410.34	155.80	329.94	119.34	470.16	132.79	167.04	104.07
1866.....	243.30	155.96	485.13	184.19	272.10	98.42	555.18	156.80	174.18	108.52
1867.....	250.56	160.62	354.31	134.62	344.10	124.46	501.06	141.52	168.48	104.97
1868.....	287.10	164.81	193.99	111.62	372.84	134.85	428.48	119.61	178.82	111.10
1869.....	249.00	159.62	335.44	127.86	439.50	158.96	442.50	124.98	185.82	115.78
1870.....	249.24	159.77	339.13	128.76	414.06	149.76	549.90	155.31	217.14	135.29
1866-'70	249.84	160.15	361.60	137.29	368.52	133.29	494.40	139.64	184.80	115.14
1871.....	267.22	171.29	315.54	119.80	546.46	197.65	565.10	159.61	211.56	131.81
1872.....	300.16	192.41	365.94	138.94	451.92	163.45	730.92	206.44	216.72	125.03
1873.....	296.46	191.32	334.28	126.92	427.26	154.53	819.90	231.57	245.52	152.97
1874.....	270.70	173.58	390.72	148.35	363.92	131.63	725.42	204.89	245.10	152.72
1875.....	240.56	154.21	305.74	116.08	400.62	144.90	734.14	207.35	298.36	185.89
1871-'75	275.43	176.55	342.44	130.02	438.04	158.43	715.10	201.97	243.46	151.69
1876.....	198.36	123.95	320.14	121.55	317.34	114.78	767.10	216.66	266.10	165.79
1877.....	176.58	112.55	300.68	114.16	271.42	98.17	780.12	206.21	212.32	132.29
1878.....	161.00	103.21	260.74	99.00	261.26	94.50	643.28	181.69	190.32	118.58
1879.....	175.78	112.68	284.30	100.35	248.36	89.83	704.28	198.92	210.14	130.93
1880.....	212.43	136.17	301.25	114.38	290.00	104.89	770.40	217.69	191.51	119.32
1876-'80	183.61	117.70	289.42	109.89	277.68	100.43	723.04	204.21	214.06	133.38
1881.....	195.05	126.42	314.37	119.36	266.74	96.48	762.94	215.48	185.96	115.86
1882.....	196.63	126.04	318.37	120.88	330.41	119.51	810.52	228.92	162.03	100.95
1883.....	194.80	124.87	300.17	116.75	367.85	133.05	824.99	233.01	178.74	111.36
1884.....	188.64	120.92	371.18	140.93	374.70	135.53	852.21	240.70	173.79	108.28
1885.....	190.32	122.00	330.26	125.39	346.27	125.24	748.59	211.43	161.61	100.69
1881-'85	192.21	123.85	338.87	128.66	337.19	121.96	799.85	225.91	172.43	107.48

Average prices of 100 articles at Hamburg, etc.—Continued.

II.—ANIMAL AND FISH PRODUCTS—Continued.

Years.	(36) Bone.		(37) Ox-horns.		(38) Mucilage.		(39) Eggs.*	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 St.	Index No.
	Marks.		Marks.		Marks.		Marks.	
1847-'50	7.98	100.00	40.80	100.00	75.18	100.00	3.48	100.00
1851	8.40	105.26	51.42	126.03	74.58	99.20	4.29	123.28
1852	8.58	107.52	55.80	136.76	72.60	96.57	4.29	123.28
1853	9.24	115.79	57.24	140.29	73.08	97.21	4.29	123.28
1854	9.54	119.55	52.26	128.09	85.74	114.05	4.29	123.28
1855	10.86	136.09	42.72	104.71	95.76	127.37	4.29	123.28
1851-'55	9.30	116.54	51.90	127.21	80.34	106.86	4.29	123.28
1856	10.08	133.83	47.04	115.29	88.80	118.12	4.29	123.28
1857	11.22	140.60	58.92	144.41	125.94	167.52	4.29	123.28
1858	10.38	130.08	69.84	171.18	122.34	162.73	4.29	123.28
1859	10.74	134.50	72.42	177.50	106.08	141.10	4.29	123.28
1860	9.18	115.04	82.26	201.62	97.62	129.85	4.29	123.28
1856-'60	10.44	130.83	66.12	162.06	108.18	143.89	4.29	123.28
1861	9.54	119.55	70.62	173.03	105.78	140.70	4.29	123.28
1862	9.54	119.55	64.80	158.82	95.16	126.58	4.63	138.79
1863	9.84	123.31	64.44	157.94	91.56	121.79	4.61	132.47
1864	9.06	121.05	59.52	145.88	87.30	116.13	4.74	136.21
1865	9.54	119.55	68.70	168.38	89.58	119.15	4.20	126.69
1861-'65	9.60	120.30	65.64	160.88	93.90	124.90	4.53	130.17
1866	9.96	124.81	71.10	174.26	88.44	117.64	4.39	126.15
1867	10.14	127.07	83.22	203.97	82.26	109.43	4.17	119.83
1868	9.06	113.53	70.74	173.38	87.72	116.68	4.38	125.86
1869	11.76	146.37	96.08	235.49	126.42	168.16	4.51	129.00
1870	12.36	154.89	73.20	179.41	99.84	132.80	4.50	129.31
1866-'70	10.08	133.83	78.87	193.31	96.96	128.97	4.39	126.15
1871	12.02	150.63	69.24	169.71	107.92	143.55	4.95	142.24
1872	13.04	163.41	81.22	206.42	138.88	184.73	5.30	152.30
1873	12.78	160.15	64.64	158.43	139.60	185.69	5.74	164.94
1874	14.06	176.19	74.94	183.68	126.64	168.45	5.55	159.48
1875	15.50	194.24	84.14	208.23	116.72	155.24	5.69	168.51
1871-'75	13.48	168.92	75.44	184.90	125.96	167.54	5.45	156.61
1876	13.48	168.92	82.80	202.94	102.52	136.37	5.42	155.75
1877	12.80	160.40	98.02	240.25	91.64	121.89	5.25	150.66
1878	12.14	152.13	78.62	192.70	87.44	116.31	5.87	154.31
1879	10.22	128.07	77.90	190.93	91.02	121.07	5.17	148.56
1880	11.26	141.10	118.88	291.87	96.81	128.77	5.42	155.75
1876-'80	11.98	150.13	91.24	228.63	93.89	124.89	5.33	153.16
1881	11.35	142.23	116.84	286.37	92.98	123.68	5.65	162.96
1882	12.81	160.53	105.63	258.90	104.30	138.73	5.30	152.30
1883	13.58	170.18	86.36	211.67	103.78	138.04	5.83	163.16
1884	12.36	154.89	86.87	212.92	105.06	140.54	6.36	164.02
1885	10.21	127.94	85.58	209.75	108.02	143.68	5.18	148.85
1881-'85	12.06	151.13	96.26	235.93	102.95	136.94	5.86	154.62

Average prices of 100 articles at Hamburg, etc.—Continued.

II.—ANIMAL AND FISH PRODUCTS—Continued.

Years.	(40) Herring.		(41) Cured fish.		(42) Fish oil.		(21-42) Total.
	Per 1-1 to.	Index No.	Per 100 kilos.	Index No.	Per 1-1 to.	Index No.	
	Marks. 20. 25	100. 00	Marks. 30. 24	100. 00	Marks. 60. 44	100. 00	100. 00
1847-'50							
1851	18. 60	90. 64	28. 80	95. 24	72. 01	119. 14	110. 38
1852	25. 96	126. 51	31. 20	103. 17	71. 62	118. 50	106. 68
1853	25. 67	125. 10	33. 24	108. 92	72. 24	119. 52	114. 94
1854	25. 03	121. 98	37. 08	122. 62	76. 24	126. 14	121. 12
1855	25. 17	122. 66	40. 44	133. 73	89. 18	147. 55	123. 54
1851-'55	24. 13	119. 16	34. 14	112. 90	75. 77	125. 36	114. 79
1856	27. 20	132. 55	37. 62	124. 40	88. 96	147. 19	127. 61
1857	33. 62	163. 84	44. 34	146. 63	89. 70	148. 41	140. 18
1858	27. 81	135. 93	38. 70	127. 98	73. 07	120. 90	127. 02
1859	29. 66	144. 54	43. 26	143. 06	70. 28	116. 28	130. 69
1860	26. 78	130. 51	39. 36	139. 16	67. 71	112. 03	133. 75
1856-'60	28. 90	142. 72	40. 68	134. 52	77. 61	128. 41	132. 31
1861	29. 94	147. 85	40. 98	135. 52	69. 48	114. 96	124. 79
1862	27. 48	135. 70	52. 20	172. 62	78. 68	130. 18	127. 19
1863	26. 12	128. 99	49. 38	163. 29	94. 44	156. 25	124. 12
1864	26. 11	128. 94	45. 00	148. 81	118. 59	196. 21	129. 21
1865	30. 28	149. 53	53. 94	178. 37	90. 80	150. 23	135. 23
1861-'65	27. 99	138. 22	48. 30	159. 72	93. 45	154. 62	128. 24
1866	32. 31	159. 56	53. 04	175. 40	79. 48	131. 50	135. 64
1867	30. 98	152. 40	41. 94	138. 69	81. 45	134. 76	132. 66
1868	30. 70	151. 60	43. 98	145. 44	71. 14	117. 70	133. 48
1869	26. 36	125. 23	52. 20	172. 62	72. 46	119. 89	143. 25
1870	25. 57	126. 27	48. 84	161. 51	79. 12	130. 91	139. 32
1866-'70	27. 97	138. 12	48. 00	158. 78	76. 37	126. 36	136. 35
1871	29. 98	148. 05	50. 72	167. 73	71. 16	117. 74	144. 14
1872	29. 03	143. 36	46. 94	155. 22	74. 62	123. 46	155. 82
1873	31. 10	153. 58	52. 88	174. 87	67. 31	111. 87	156. 72
1874	31. 90	157. 53	51. 94	171. 76	66. 04	109. 27	157. 76
1875	31. 36	154. 96	44. 38	146. 76	66. 90	110. 69	158. 59
1871-'75	30. 75	149. 85	49. 88	163. 29	69. 15	114. 41	151. 57
1876	33. 08	163. 36	56. 12	185. 58	65. 17	107. 83	155. 79
1877	35. 72	176. 40	52. 54	173. 74	62. 97	104. 19	152. 51
1878	33. 15	163. 70	51. 28	169. 58	57. 77	95. 58	141. 53
1879	37. 48	185. 99	45. 90	151. 79	50. 98	84. 85	137. 60
1880	32. 47	160. 35	39. 23	129. 73	49. 37	81. 68	147. 30
1876-'80	34. 37	167. 50	49. 01	162. 07	57. 06	94. 41	146. 76
1881	34. 10	168. 40	47. 92	158. 47	61. 36	101. 52	151. 21
1882	35. 73	176. 44	57. 50	190. 15	67. 39	111. 50	155. 17
1883	36. 58	180. 64	62. 95	208. 16	72. 64	120. 19	156. 40
1884	32. 27	159. 36	57. 26	189. 35	60. 61	100. 28	150. 26
1885	29. 29	144. 64	52. 78	174. 54	50. 49	83. 54	140. 45
1881-'85	33. 59	165. 88	55. 68	184. 18	62. 50	103. 41	150. 65

Average prices of 100 articles at Hamburg, etc.—Continued.

III.—SOUTHERN PRODUCTS.

Years.	(43) Raisins.		(44) Currants.		(45) Almonds.		(46) Prunes.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
	Marks.		Marks.		Marks.		Marks.	
1847-'50	42.72	100.00	47.94	100.00	112.56	100.00	38.60	100.00
1851	35.58	83.29	32.58	67.98	125.58	111.57	37.80	96.45
1852	34.20	80.08	50.58	105.51	124.80	110.87	32.46	81.97
1853	52.80	123.60	95.64	199.50	131.16	116.52	34.08	86.06
1854	55.08	128.93	27.48	57.32	130.56	115.99	35.46	90.55
1855	51.72	121.07	76.98	160.58	134.40	119.40	46.80	118.18
1851-'55	45.90	107.44	56.64	118.15	129.30	114.87	37.32	94.24
1856	81.24	190.17	111.36	232.29	135.66	120.52	47.94	118.79
1857	94.38	220.93	89.10	185.86	157.68	140.09	53.34	134.70
1858	92.34	145.93	48.36	100.88	128.70	114.34	40.02	101.06
1859	56.86	137.78	46.98	98.00	111.36	96.93	44.40	112.12
1860	54.72	128.09	41.46	86.48	110.22	97.92	40.98	103.48
1856-'60	70.32	164.61	67.44	140.68	128.70	114.34	45.18	114.09
1861	52.62	123.17	40.08	83.60	117.12	104.05	43.02	108.64
1862	51.00	119.38	38.28	79.85	107.70	95.68	36.48	92.12
1863	54.90	128.51	38.64	80.60	117.30	104.21	39.54	99.88
1864	49.56	116.01	38.28	79.85	121.08	107.57	42.42	107.12
1865	47.88	112.08	35.28	73.59	131.56	116.90	47.40	119.79
1861-'65	51.18	119.80	38.10	79.47	118.92	105.65	41.76	105.45
1866	63.84	149.44	37.86	78.97	155.70	138.33	53.70	135.61
1867	60.54	141.71	35.16	73.34	156.42	138.97	51.78	130.76
1868	50.64	118.54	30.42	63.45	149.82	133.10	39.36	98.39
1869	45.00	105.34	32.40	67.58	139.92	124.31	46.02	116.21
1870	58.26	136.28	45.36	94.62	146.46	130.12	37.92	96.76
1866-'70	55.68	130.34	36.24	75.59	149.64	132.94	45.78	115.61
1871	53.68	125.66	46.16	96.29	134.28	119.30	48.96	123.69
1872	52.14	122.05	45.58	95.08	118.24	105.95	53.06	124.04
1873	57.93	135.58	40.62	84.73	113.28	100.64	66.08	166.87
1874	60.38	141.34	44.52	92.87	123.72	109.91	72.92	184.14
1875	66.66	155.81	44.88	93.62	135.86	120.70	45.72	115.45
1871-'75	58.14	136.10	44.36	92.53	125.08	111.12	57.36	144.85
1876	55.24	129.31	49.82	103.92	134.86	119.81	46.68	125.45
1877	47.72	111.70	49.36	102.96	151.64	134.72	60.12	151.82
1878	37.12	86.89	34.62	72.22	167.76	149.04	52.12	131.62
1879	47.64	111.28	40.82	85.15	181.66	161.39	50.14	126.62
1880	54.83	128.35	45.03	93.93	163.53	145.28	55.28	139.60
1876-'80	48.49	113.51	43.93	91.64	150.80	142.05	53.47	135.03
1881	62.36	145.97	42.69	89.05	148.50	131.93	48.50	109.85
1882	58.76	137.55	45.88	96.70	137.31	121.99	46.21	116.69
1883	48.61	113.79	44.10	91.99	158.65	140.95	53.93	136.19
1884	41.14	96.30	35.31	73.65	142.72	126.79	38.03	96.04
1885	51.02	119.43	37.43	78.10	130.77	116.18	36.12	91.21
1881-'85	52.38	122.61	41.08	85.69	143.59	127.56	48.56	119.09

PRODUCTION OF THE PRECIOUS METALS.

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Average prices of 100 articles at Hamburg, etc.—Continued.

III.—SOUTHERN PRODUCTS—Continued.

Years.	(47) Olive oil.		(48) French wine, exclusive of champagne.		(49) Champagne.		(43-49) total.
	Per 100 kilos.	Index No.	Per hectol.	Index No.	Per 100 bottles.	Index No.	
	Marks.		Marks.		Marks.		
1847-'50	105.90	100.00	27.60	100.00	318.56	100.00	100.00
1851	77.82	73.48	27.83	100.83	305.89	97.89	90.00
1852	98.42	91.05	28.60	103.62	295.45	94.22	95.33
1853	121.56	114.79	37.69	136.56	302.39	96.44	124.78
1854	109.20	103.12	55.03	199.38	301.28	96.08	112.91
1855	100.62	95.01	77.00	278.99	316.54	100.95	142.03
1851-'55	109.32	103.23	38.11	138.08	304.06	96.97	110.43
1856	94.86	89.58	65.69	237.68	321.78	102.62	155.95
1857	108.30	102.27	79.71	288.80	352.97	112.57	169.32
1858	86.04	81.25	54.00	195.65	331.59	105.75	120.69
1859	91.56	86.46	42.63	154.43	332.45	106.02	113.40
1860	112.92	106.63	59.39	215.18	328.47	104.76	120.36
1856-'60	106.92	100.96	55.71	201.85	333.89	106.48	134.72
1861	111.28	105.08	62.89	227.86	320.23	102.13	122.08
1862	107.76	101.76	56.17	205.51	329.97	105.23	113.93
1863	103.98	98.19	52.11	188.80	328.17	104.66	114.97
1864	108.72	102.66	41.79	151.41	317.55	101.27	109.41
1865	104.28	98.47	47.65	172.64	328.20	104.67	114.01
1861-'65	107.22	101.25	50.71	183.73	324.75	103.57	114.13
1866	131.46	124.14	39.46	142.97	359.51	114.65	126.30
1867	128.82	121.64	46.45	168.30	346.14	110.39	126.44
1868	143.46	135.47	51.23	185.62	343.86	109.66	120.75
1869	111.30	105.10	49.62	179.78	347.19	110.73	115.68
1870	113.68	107.25	42.92	155.51	346.05	110.36	118.57
1866-'70	125.70	118.70	45.98	166.59	348.12	111.02	121.54
1871	107.60	101.61	48.67	176.84	370.06	118.02	122.99
1872	102.14	96.45	57.22	207.82	368.51	117.52	125.36
1873	89.70	84.70	64.08	232.17	377.48	120.39	132.16
1874	93.14	87.95	75.28	272.75	395.74	126.21	145.02
1875	98.68	93.18	59.95	217.21	387.24	124.50	131.85
1871-'75	98.26	92.79	61.26	221.93	379.98	121.18	131.50
1876	100.78	95.17	56.21	203.66	387.30	124.52	128.69
1877	108.78	102.72	70.63	256.91	388.81	124.00	140.55
1878	110.92	104.74	77.53	280.91	390.56	114.99	134.34
1879	104.06	98.26	75.40	273.19	369.40	117.81	139.10
1880	103.20	97.45	97.67	353.88	389.11	124.09	154.65
1876-'80	105.55	99.67	74.41	269.60	379.06	120.89	138.91
1881	93.59	88.38	91.96	343.19	400.13	127.61	146.57
1882	94.58	89.31	79.77	289.02	389.96	124.37	139.23
1883	85.71	80.93	83.33	301.93	410.34	130.86	142.38
1884	91.20	81.20	66.56	241.16	379.33	120.18	120.16
1885	92.52	87.87	70.41	255.11	372.62	118.84	123.78
1881-'85	91.64	86.44	78.40	284.06	390.46	124.52	134.81

Average prices of 100 articles at Hamburg, etc.—Continued.

IV.—TROPICAL PRODUCTS (EXCLUSIVE OF COTTON).

Years.	(50) Coffee.		(51) Cocoa.		(52) Tea.		(53) Pepper.		(54) Pimento.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 74.16	100.00	Marks. 64.86	100.00	Marks. 288.96	100.00	Marks. 55.08	100.00	Marks. 92.28	100.00
1851	82.20	110.84	58.02	89.45	300.00	103.82	63.00	114.38	97.98	106.18
1852	82.20	110.84	64.20	98.98	273.42	94.62	71.40	129.63	96.78	104.88
1853	93.12	125.57	67.80	104.53	296.40	102.57	82.14	149.13	107.52	116.51
1854	94.32	127.18	67.74	104.44	288.06	99.69	91.98	166.99	104.04	112.74
1855	92.10	124.19	92.10	142.00	262.68	90.91	84.42	153.27	95.58	103.58
1851-'55	88.80	119.74	69.96	107.86	284.10	98.32	78.60	142.70	100.38	106.78
1856	95.70	129.05	102.84	158.56	298.89	103.41	96.84	175.82	88.50	95.90
1857	105.54	142.31	164.94	254.30	334.62	115.80	91.38	165.90	79.44	86.09
1858	91.20	122.98	105.78	163.09	280.02	96.91	80.58	146.30	57.90	62.74
1859	106.68	143.85	106.14	163.64	335.16	115.99	83.52	151.63	58.62	63.52
1860	122.22	164.81	129.30	199.35	377.10	130.50	80.22	145.64	62.28	67.49
1856-'60	104.28	140.61	121.80	187.79	325.14	112.52	86.52	157.08	69.36	75.16
1861	123.12	166.02	115.50	178.08	295.50	102.26	75.72	137.47	53.78	58.26
1862	135.24	182.36	113.64	175.21	333.96	115.57	75.24	136.60	55.56	60.21
1863	141.06	190.21	113.82	175.49	350.28	121.22	71.88	130.50	49.74	53.90
1864	138.78	187.14	129.24	199.26	312.48	108.14	69.96	127.02	43.68	47.53
1865	130.80	176.38	119.64	184.46	288.84	99.96	65.22	118.41	47.28	51.24
1861-'65	133.80	180.42	118.38	182.52	316.20	109.43	71.58	129.96	50.04	54.23
1866	121.80	164.94	132.06	204.53	277.74	96.11	63.18	114.71	46.44	50.33
1867	109.02	147.01	118.20	182.24	341.52	118.19	64.44	118.99	37.80	40.96
1868	96.48	130.10	97.02	149.58	338.04	116.99	53.46	96.95	42.66	46.22
1869	99.12	133.66	94.62	145.88	309.00	106.94	53.52	151.63	41.82	45.32
1870	100.56	135.60	95.34	146.99	276.60	95.72	95.76	173.86	41.82	45.32
1866-'70	105.42	142.15	107.58	165.86	308.58	106.79	72.06	130.83	42.12	45.64
1871	111.79	150.70	99.94	154.09	275.06	95.19	110.18	200.04	39.82	43.15
1872	146.24	197.20	110.82	170.86	294.84	102.03	130.32	236.60	61.36	66.49
1873	177.38	238.19	96.14	148.23	280.20	96.97	143.66	260.82	55.61	60.29
1874	186.06	250.82	98.88	152.45	277.42	96.01	135.96	246.84	61.92	67.10
1875	180.68	243.64	102.86	158.59	286.22	99.05	112.52	204.28	60.04	65.06
1871-'75	160.42	216.32	101.72	156.83	282.74	97.85	126.52	229.70	55.76	60.42
1876	166.50	224.51	130.90	201.82	279.22	96.63	86.20	156.50	71.26	77.22
1877	172.18	232.17	137.38	211.81	238.16	82.42	82.96	150.62	78.64	85.22
1878	149.42	201.48	160.16	246.93	223.94	77.50	70.70	128.36	88.04	95.41
1879	136.22	183.68	197.42	304.38	250.52	86.70	72.30	131.25	95.84	103.86
1880	143.15	193.03	131.62	202.93	237.17	82.06	86.83	157.64	85.70	92.87
1876-'80	153.49	206.97	151.50	233.58	245.80	85.06	79.80	144.88	83.90	90.92
1881	124.46	167.83	137.99	212.75	216.74	75.01	105.77	192.03	91.99	98.71
1882	100.33	135.29	140.68	216.90	214.77	74.33	110.09	199.87	78.07	81.60
1883	100.19	135.10	158.77	244.79	210.18	72.74	129.35	234.84	62.77	68.02
1884	99.83	134.61	148.55	229.03	212.66	73.59	146.33	265.67	51.74	56.07
1885	91.20	122.98	160.14	246.90	206.47	71.45	152.50	276.87	49.19	53.31
1881-'85	103.20	139.16	149.23	230.08	212.16	73.42	128.81	233.86	66.57	72.14

Average prices of 100 articles at Hamburg, etc.—Continued.

IV.—TROPICAL PRODUCTS (EXCLUSIVE OF COTTON)—Continued.

Years.	(55) Cassia.		(56) Rice.		(57) Sago.		(58) Arrack.		(59) Rum.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 171.78	100.00	Marks. 33.06	100.00	Marks. 49.56	100.00	Marks. 49.92	100.00	Marks. 52.14	100.00
1851.....	202.02	117.60	27.18	80.75	46.02	92.86	48.18	96.51	52.38	100.46
1852.....	219.00	127.49	23.40	69.52	40.02	80.75	46.98	94.11	49.02	94.02
1853.....	232.44	135.31	31.08	94.12	48.36	97.58	56.88	113.94	66.18	126.93
1854.....	277.40	132.38	28.92	85.92	47.22	95.28	64.68	129.57	70.20	134.64
1855.....	223.96	130.32	32.58	96.79	53.22	107.38	82.52	167.31	77.16	147.99
1851-'55	220.92	128.61	28.74	85.38	46.96	94.79	60.06	120.31	63.00	120.83
1856.....	204.36	118.97	25.20	74.87	53.22	107.38	81.60	163.46	72.18	134.43
1857.....	254.46	148.13	24.50	73.98	51.06	104.24	79.26	158.77	88.38	169.51
1858.....	191.40	113.17	20.22	60.07	39.06	80.63	53.34	106.85	62.70	120.25
1859.....	163.38	95.11	22.08	65.00	39.84	80.39	45.12	90.88	71.58	137.28
1860.....	179.94	104.75	24.48	72.73	41.23	83.17	46.26	92.67	74.10	142.12
1856-'60	199.32	116.03	23.40	69.52	45.18	91.16	61.14	122.48	73.80	141.54
1861.....	178.34	102.65	24.06	73.26	41.22	83.17	56.22	112.62	71.10	136.86
1862.....	170.94	99.51	23.34	69.84	47.22	95.28	48.30	96.75	58.38	111.97
1863.....	180.72	105.20	22.92	68.09	43.08	86.92	61.68	123.56	60.42	115.88
1864.....	172.08	100.17	22.98	68.27	45.24	91.28	61.88	122.96	78.48	150.52
1865.....	171.54	99.86	24.78	73.02	41.28	83.29	56.82	113.82	68.04	130.49
1861-'65	174.30	101.47	23.76	70.59	42.62	88.01	56.88	113.94	67.26	129.00
1866.....	192.18	111.88	22.74	67.56	37.74	76.15	54.72	109.62	70.86	135.90
1867.....	204.60	119.11	23.86	70.94	38.16	77.00	60.96	122.12	73.14	140.28
1868.....	228.72	123.15	23.58	70.05	43.92	88.62	67.80	135.82	81.36	156.04
1869.....	200.70	151.76	19.20	57.04	43.56	87.89	76.26	152.76	89.40	171.46
1870.....	234.18	136.33	21.96	65.24	37.32	75.30	69.90	140.02	92.94	178.25
1866-'70	224.10	130.46	23.26	66.13	40.14	80.99	65.94	132.09	81.54	156.39
1871.....	213.04	124.02	22.36	66.43	36.20	73.04	60.48	121.15	81.78	156.85
1872.....	179.58	104.54	22.83	67.80	36.34	73.33	54.96	110.10	89.52	171.06
1873.....	155.94	90.78	20.42	60.67	37.52	75.71	70.74	171.71	100.56	192.87
1874.....	132.36	77.05	23.02	68.39	40.52	81.76	88.00	170.28	106.56	204.37
1875.....	112.82	65.68	19.30	57.34	38.32	77.32	84.38	169.03	95.58	183.21
1871-'75	158.74	92.41	21.58	64.11	37.78	76.23	71.72	143.67	94.80	181.82
1876.....	102.50	59.67	19.88	59.06	36.14	72.92	86.86	174.00	104.28	200.00
1877.....	99.80	58.10	21.22	63.04	39.68	80.00	87.94	176.16	108.82	208.71
1878.....	85.90	50.01	22.42	66.01	42.04	84.83	76.70	153.65	103.08	197.70
1879.....	82.78	48.19	21.02	62.45	40.82	82.36	58.20	116.59	98.22	188.38
1880.....	75.68	44.06	19.82	58.88	36.88	74.41	66.67	133.55	107.49	206.16
1876-'80	89.23	52.00	20.87	62.00	39.11	78.91	75.27	150.78	104.38	200.19
1881.....	85.23	49.67	19.75	58.67	37.87	76.41	57.76	115.71	111.32	213.50
1882.....	74.57	43.41	17.84	53.00	33.78	68.16	92.27	184.84	104.47	200.36
1883.....	66.67	39.98	19.25	57.19	29.40	59.82	48.01	96.17	112.04	214.88
1884.....	63.67	37.06	18.44	54.78	26.78	53.93	73.02	148.08	87.40	167.63
1885.....	54.40	31.67	17.37	51.60	28.57	57.65	67.38	134.98	103.79	199.06
1881-'85	60.23	40.36	18.53	55.05	31.27	63.10	67.57	135.96	106.80	199.06

Average prices of 100 articles at Hamburg, etc.—Continued.

IV.—TROPICAL PRODUCTS (EXCLUSIVE OF COTTON)—Continued.

Years.	(60) Tobacco.		(61) Indigo.		(62) Cochineal.		(63) Logwood.		(64) Redwood.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50 ...	<i>Marks.</i> 97.44	100.00	<i>Marks.</i> 862.50	100.00	<i>Marks.</i> 1,026.06	100.00	<i>Marks.</i> 11.22	100.00	<i>Marks.</i> 25.80	100.00
1851.....	109.38	112.25	967.98	112.23	813.00	79.24	9.42	83.96	24.78	96.05
1852.....	100.38	103.02	1,026.00	118.96	793.80	77.86	10.02	89.30	24.42	94.65
1853.....	113.88	116.87	1,103.40	127.93	987.48	96.24	14.28	127.27	25.44	98.00
1854.....	113.88	116.87	1,064.76	123.45	909.54	88.64	15.72	140.11	24.96	96.74
1855.....	122.34	125.55	1,103.34	127.92	871.14	84.90	13.74	122.46	26.46	102.56
1851-'55...	111.96	114.90	1,053.12	122.10	874.98	55.28	12.60	112.83	25.20	97.67
1856.....	145.26	149.08	1,103.40	127.93	851.88	83.02	13.98	124.60	26.58	103.02
1857.....	155.34	159.42	1,316.40	152.63	812.70	79.21	12.18	108.50	32.90	131.40
1858.....	125.70	129.00	1,322.00	153.39	815.76	79.50	10.32	91.98	23.16	89.77
1859.....	149.94	144.64	1,325.10	153.63	786.24	76.63	10.98	97.86	25.26	97.91
1860.....	144.18	147.97	1,406.82	163.11	628.38	61.24	12.06	107.49	21.78	84.42
1856-'60...	142.26	146.00	1,294.92	150.14	778.98	75.92	11.88	105.88	26.16	101.40
1861.....	162.78	167.06	1,480.14	172.31	618.96	60.33	13.44	119.79	18.96	73.49
1862.....	172.44	176.97	1,623.04	188.83	545.34	53.15	13.86	123.53	17.10	66.28
1863.....	136.02	139.50	1,291.20	149.70	607.50	59.21	12.06	107.49	15.90	61.63
1864.....	135.30	136.85	1,342.38	155.64	726.60	70.81	11.64	103.74	16.80	65.13
1865.....	113.82	116.81	1,303.08	151.08	753.00	73.48	12.36	110.16	18.78	72.79
1861-'65...	144.06	147.84	1,410.30	163.51	650.46	63.39	12.66	112.83	17.52	67.91
1866.....	104.52	107.27	1,460.64	169.35	797.28	77.70	13.88	119.25	20.40	79.07
1867.....	116.64	119.09	1,459.74	169.25	777.96	75.83	10.62	91.05	21.72	84.19
1868.....	122.04	125.25	1,568.70	181.88	875.88	85.36	13.38	119.25	24.84	96.28
1869.....	139.80	153.47	1,734.13	201.00	705.84	68.79	15.42	137.43	21.36	82.79
1870.....	134.94	138.49	1,742.82	202.07	630.12	61.41	13.02	116.04	16.68	64.65
1866-'70...	123.48	126.72	1,593.18	184.72	757.44	73.82	13.14	117.11	21.00	81.40
1871.....	139.30	142.96	1,630.68	189.09	622.94	60.71	13.20	117.65	15.42	59.77
1872.....	164.02	168.33	1,617.81	187.58	553.28	53.02	14.28	127.27	14.02	54.34
1873.....	148.32	152.22	1,418.00	164.40	567.14	55.27	14.24	126.92	14.78	57.20
1874.....	148.22	152.11	1,476.18	171.15	524.52	51.12	13.18	117.47	22.12	83.74
1875.....	142.54	146.28	1,451.88	168.28	466.98	45.51	16.40	146.17	20.18	78.22
1871-'75...	148.48	152.39	1,518.86	176.10	546.98	53.31	14.26	127.09	17.30	67.05
1876.....	147.92	151.83	1,803.34	151.11	508.84	49.59	15.58	138.86	16.66	64.57
1877.....	141.78	145.50	1,311.30	152.38	569.28	55.48	14.82	132.09	15.68	60.78
1878.....	134.54	138.07	1,250.22	146.00	523.10	50.99	13.76	122.64	15.86	61.47
1879.....	126.84	130.17	1,246.73	144.55	576.52	56.19	14.54	129.59	16.72	64.81
1880.....	126.45	140.03	1,304.74	151.27	508.30	58.32	14.66	130.06	18.66	76.20
1876-'80...	137.51	141.12	1,285.66	140.06	555.23	54.11	14.07	130.75	16.92	65.58
1881.....	130.42	133.85	1,893.25	161.54	439.30	42.81	13.75	122.55	17.09	66.24
1882.....	116.29	119.35	1,862.34	157.95	355.89	34.69	14.13	125.94	15.55	60.37
1883.....	112.26	115.20	1,803.29	151.10	265.48	25.68	13.35	118.98	14.95	57.96
1884.....	123.54	126.79	1,223.93	141.90	250.38	24.40	13.45	119.88	13.31	51.50
1885.....	125.41	128.70	1,089.80	126.35	316.40	30.84	12.63	112.57	11.14	43.18
1881-'86...	121.58	124.77	1,374.52	147.77	325.49	31.72	13.45	119.96	14.41	55.86

PRODUCTION OF THE PRECIOUS METALS.

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Average prices of 100 articles at Hamburg, etc.—Continued.

IV.—TROPICAL PRODUCTS (EXCLUSIVE OF COTTON)—Continued.

Years.	(65) Mahogany.		(66) Cane.		(67) Palm-oil.		(68) Ivory.		(50-68) Total.
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	
1847-'50.....	Marks. 21.90	100.00	Marks. 30.96	100.00	Marks. 65.46	100.00	Marks. 919.26	100.00	100.00
1851.....	25.20	110.50	32.83	106.01	56.83	86.80	909.78	98.97	99.94
1852.....	25.20	110.50	32.83	105.23	58.38	89.18	975.18	106.08	99.96
1853.....	23.58	107.67	36.06	116.47	72.60	110.91	1,122.96	122.13	115.28
1854.....	24.00	109.59	31.56	101.94	95.88	146.47	1,218.90	132.60	118.17
1855.....	19.56	89.82	33.00	106.59	85.74	130.96	1,835.84	145.82	121.02
1851-'55.....	23.52	107.40	38.18	107.17	73.86	112.83	1,112.46	121.02	110.97
1856.....	23.88	109.44	36.00	116.28	81.60	124.66	1,893.86	151.68	123.95
1857.....	24.02	127.95	53.84	172.29	89.22	136.30	1,648.88	179.32	140.32
1858.....	20.58	93.97	49.14	158.73	76.83	116.59	1,439.10	156.55	112.76
1859.....	23.76	108.49	41.40	133.73	83.46	127.50	1,891.16	151.38	115.74
1860.....	27.12	123.84	37.74	121.90	80.46	122.91	1,872.26	149.28	120.28
1856-'60.....	24.66	112.60	43.50	140.50	82.20	128.57	1,448.94	157.62	122.61
1861.....	23.16	107.12	36.96	119.88	81.12	123.92	1,223.16	138.06	117.19
1862.....	19.32	88.22	42.24	136.48	75.54	115.88	1,857.54	136.80	117.28
1863.....	27.72	126.58	53.28	172.09	64.82	98.23	1,240.92	134.90	116.87
1864.....	41.58	189.86	58.44	188.76	72.36	110.54	1,563.24	163.53	125.74
1865.....	27.96	127.67	53.52	172.87	72.24	110.36	1,280.04	139.25	146.11
1861-'65.....	28.02	127.95	48.90	157.95	73.14	111.73	1,800.98	141.52	118.64
1866.....	26.40	120.55	50.82	164.15	77.40	118.24	1,411.62	153.56	117.90
1867.....	19.86	90.68	41.76	134.88	80.16	122.46	1,349.76	146.83	114.35
1868.....	15.96	72.88	44.04	142.25	82.08	125.39	1,848.46	146.15	116.75
1869.....	14.88	67.95	43.44	140.81	83.04	126.86	1,851.14	146.98	122.10
1870.....	22.32	101.92	44.64	144.19	79.08	120.81	1,864.16	148.40	120.56
1866-'70.....	19.86	90.68	44.94	145.16	80.34	122.73	1,864.04	148.38	118.32
1871.....	20.70	94.52	43.00	138.89	103.08	157.47	1,273.34	138.52	120.22
1872.....	27.18	124.11	55.12	178.04	79.10	116.25	1,510.88	164.86	130.25
1873.....	25.78	117.72	50.82	193.23	74.24	113.41	1,878.20	204.32	134.32
1874.....	22.32	101.92	59.22	191.28	70.80	108.16	1,819.66	197.95	136.74
1875.....	20.22	92.33	56.58	182.75	70.30	107.39	2,021.96	219.95	132.11
1871-'75.....	23.24	106.12	54.74	176.81	78.90	120.53	1,700.80	185.02	130.72
1876.....	22.76	103.93	50.56	163.31	73.96	112.99	1,897.82	206.45	129.74
1877.....	21.74	99.27	52.60	169.90	77.72	118.73	1,775.60	193.16	130.29
1878.....	18.88	86.21	49.24	159.04	77.36	118.18	1,852.88	201.56	125.61
1879.....	18.70	85.39	47.54	153.55	68.66	104.89	1,630.90	166.54	123.34
1880.....	20.66	94.34	54.73	176.78	65.19	99.59	1,498.00	162.74	122.92
1876-'80.....	20.55	93.84	50.93	164.50	72.58	110.88	7,710.64	186.09	126.38
1881.....	19.91	90.91	55.47	179.17	63.04	96.30	1,615.50	175.74	122.60
1882.....	21.52	98.26	56.42	182.24	63.64	97.22	1,748.77	180.24	122.47
1883.....	22.89	102.24	56.09	181.17	69.15	105.61	1,658.13	202.13	120.17
1884.....	17.40	79.45	51.42	166.09	65.90	100.67	1,920.69	208.94	117.90
1885.....	16.02	73.15	53.27	172.06	54.54	83.32	1,790.43	194.77	116.39
1881-'85.....	19.45	88.81	54.53	176.13	62.25	96.62	1,786.70	194.36	119.81

Average prices of 100 articles at Hamburg, etc.—Continued.

V.—MINERALS AND METALS.

Years.	(69) Coal.		(70) Pig iron.		(71) Bar iron.		(72) Steel.		(73) Lead.	
	Per 1000 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50.	Marks. 15.73	100.00	Marks. 7.44	100.00	Marks. 19.80	100.00	Marks. 53.82	100.00	Marks. 36.48	100.00
1851.	13.81	87.79	5.58	75.00	16.02	80.91	49.20	91.42	36.78	100.82
1852.	13.78	87.60	5.82	78.23	16.62	82.94	55.38	102.90	33.18	90.95
1853.	17.91	113.96	7.92	106.45	22.20	112.12	48.12	89.41	42.22	117.11
1854.	20.85	131.28	10.44	140.82	25.88	128.18	61.92	115.50	47.16	129.28
1855.	19.00	120.79	9.48	127.42	22.74	114.85	77.64	144.26	51.54	141.28
1851-'55.	16.95	107.78	7.86	105.05	20.58	103.94	58.44	108.58	42.30	115.95
1856.	18.78	119.89	9.18	122.99	24.12	121.82	70.03	130.10	47.64	120.59
1857.	17.97	114.24	8.82	118.65	24.00	121.21	69.00	128.21	46.68	127.96
1858.	15.78	100.32	6.90	92.74	20.28	102.43	60.60	112.60	41.22	112.99
1859.	15.68	99.36	6.54	87.90	20.28	102.42	58.14	108.03	41.28	121.38
1860.	15.18	96.50	6.54	87.90	19.50	98.48	55.20	102.56	42.42	116.28
1856-'60.	16.95	105.85	7.62	102.42	21.66	109.39	62.68	116.28	44.46	121.88
1861.	15.93	101.27	6.18	83.09	18.42	93.03	55.86	103.70	41.64	114.14
1862.	16.03	101.91	6.30	84.68	18.84	95.15	58.02	107.80	39.78	109.05
1863.	15.98	95.87	7.82	98.59	19.50	98.48	67.58	125.53	39.66	108.72
1864.	16.11	102.42	7.56	101.61	22.14	111.82	58.62	108.92	40.98	112.74
1865.	16.35	103.94	7.38	99.19	21.54	108.79	58.50	108.70	39.06	107.03
1861-'65.	15.91	101.14	6.96	93.55	20.10	101.52	59.70	110.93	40.20	110.20
1866.	16.81	103.69	7.08	95.16	21.60	106.06	54.90	102.01	40.92	112.17
1867.	16.02	101.84	6.96	93.55	20.22	102.12	47.52	88.29	38.16	104.61
1868.	15.58	99.05	6.72	90.32	18.72	94.55	48.00	89.19	40.56	111.18
1869.	15.13	93.19	6.60	88.71	18.54	93.64	48.54	90.19	39.60	108.55
1870.	15.16	93.38	6.96	93.55	19.68	99.30	49.20	91.42	40.98	112.34
1866-'70.	15.60	99.17	6.84	91.94	19.62	99.09	49.62	92.20	40.02	109.70
1871.	15.55	98.86	7.20	97.58	21.82	107.68	58.30	108.44	39.30	107.73
1872.	21.73	139.14	12.54	168.55	27.60	139.39	66.32	123.23	51.70	147.20
1873.	27.46	174.57	14.36	193.01	34.24	172.98	57.12	106.13	63.08	172.02
1874.	22.17	140.94	10.26	137.90	22.48	113.54	45.12	83.81	45.06	123.57
1875.	18.07	114.88	8.20	110.22	23.62	19.20	39.62	73.62	50.22	157.06
1871-'75.	20.05	131.28	10.52	141.40	25.86	130.61	53.90	99.03	50.28	137.83
1876.	16.56	105.28	8.08	108.60	20.53	103.64	54.42	101.11	47.92	131.36
1877.	15.40	97.90	7.18	96.51	18.72	94.55	48.20	89.50	44.12	120.94
1878.	13.95	88.68	6.40	86.02	17.48	88.28	46.06	85.56	40.92	112.17
1879.	13.10	83.28	5.72	76.88	15.70	79.60	37.06	69.07	37.30	102.25
1880.	12.16	83.66	6.54	87.90	16.55	83.59	37.77	70.18	37.01	101.45
1876-'80.	14.35	91.23	6.78	91.13	17.81	89.95	44.82	83.28	41.45	113.62
1881.	12.67	80.55	5.94	79.84	16.01	80.86	37.15	69.03	31.15	85.39
1882.	12.66	80.48	6.30	83.33	17.58	88.79	36.88	68.52	30.34	83.17
1883.	12.65	80.42	5.96	80.11	16.81	82.87	34.87	64.79	28.78	78.59
1884.	12.52	79.59	5.77	77.55	15.18	76.67	37.08	68.89	25.08	68.75
1885.	12.81	78.26	5.14	69.09	14.26	72.02	34.41	63.94	25.89	70.97
1881-'85.	12.56	79.85	5.80	77.96	15.87	80.15	38.08	67.04	28.25	77.44

Average prices of 100 articles at Hamburg, etc.—Continued.

V.—MINERALS AND METALS—Continued.

Years.	(74) Zinc.		(75) Tin.		(76) Copper.		(77) Quicksilver.		(78) Sulphur, raw.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 31.98	100.00	Marks. 160.20	100.00	Marks. 171.96	100.00	Marks. 836.28	100.00	Marks. 13.38	100.00
1851.....	28.98	93.24	160.98	100.49	173.58	100.94	735.60	87.96	14.82	110.76
1852.....	33.42	107.53	174.18	108.73	183.42	106.66	620.22	74.16	13.38	100.00
1853.....	42.06	135.33	246.84	154.08	223.26	129.83	499.80	59.76	13.02	97.81
1854.....	42.26	142.47	237.24	148.09	232.50	135.21	436.86	52.24	10.62	79.37
1855.....	45.17	145.37	231.30	144.36	232.80	135.38	400.32	47.87	11.10	82.96
1851-'55	38.76	124.71	210.12	131.16	209.10	121.60	538.44	64.39	12.60	94.17
1856.....	49.92	157.72	266.22	166.18	240.24	139.71	387.12	46.29	10.56	78.92
1857.....	50.52	191.85	297.84	185.92	228.54	132.90	417.54	49.93	18.54	138.57
1858.....	46.80	150.66	244.38	152.55	205.50	119.50	408.00	48.79	16.44	122.87
1859.....	41.76	134.36	273.46	170.71	193.68	112.63	386.70	46.24	17.04	127.35
1860.....	39.78	127.90	276.78	172.77	204.18	118.74	443.34	53.01	20.40	152.47
1856-'60	46.80	150.68	271.74	169.68	214.44	124.70	408.54	48.85	16.62	124.22
1861.....	36.00	115.83	245.16	153.03	192.00	111.65	435.48	52.07	15.60	116.59
1862.....	35.76	115.06	238.62	148.95	189.12	109.98	444.06	53.10	13.80	103.14
1863.....	35.76	115.06	259.44	161.95	178.62	103.87	434.88	52.00	12.36	92.38
1864.....	43.14	138.80	222.96	139.18	194.88	113.33	513.36	61.39	14.70	109.87
1865.....	41.94	134.94	198.48	123.90	178.20	103.63	447.30	53.40	13.50	100.90
1861-'65	38.52	123.94	232.92	145.39	186.54	106.48	455.04	54.41	13.98	104.48
1866.....	43.86	141.12	179.88	112.28	187.62	108.76	422.82	50.56	13.62	101.79
1867.....	43.08	138.61	186.06	116.14	167.82	97.59	447.66	53.53	12.72	95.07
1868.....	40.20	129.34	192.90	120.41	153.72	89.39	417.06	49.87	12.90	96.41
1869.....	41.40	133.20	241.74	150.90	155.52	90.44	447.54	53.42	14.58	108.97
1870.....	38.76	124.71	257.88	160.97	151.14	87.89	491.70	59.15	15.00	112.11
1866-'70	41.46	133.40	211.08	132.18	163.02	94.80	445.98	58.33	13.74	102.69
1871.....	35.90	116.51	276.46	172.57	155.58	90.47	608.42	72.16	13.42	100.30
1872.....	45.90	147.68	311.42	194.39	190.02	110.50	720.18	86.12	12.78	95.52
1873.....	55.64	179.02	297.54	185.73	191.50	111.86	846.68	101.24	11.56	86.40
1874.....	46.08	148.26	212.78	132.82	177.76	103.37	1,303.30	155.87	13.80	103.14
1875.....	48.14	154.69	198.64	124.00	183.12	106.49	796.50	94.05	13.78	102.99
1871-'75	46.34	149.10	259.36	161.90	179.60	104.44	852.06	101.89	13.06	97.61
1876.....	50.90	163.77	184.50	115.17	181.60	105.61	698.98	83.58	12.00	89.69
1877.....	44.74	143.95	163.38	101.98	171.14	99.52	543.30	64.97	11.86	88.64
1878.....	45.70	147.04	146.32	91.34	151.63	88.17	450.14	53.83	12.82	91.08
1879.....	31.24	110.17	146.90	91.70	135.84	79.00	406.20	48.67	9.42	70.40
1880.....	39.85	128.22	178.42	111.27	131.82	76.66	434.09	51.91	11.83	88.42
1876-'80	43.09	138.64	163.90	102.31	154.40	89.79	506.54	60.57	11.40	85.87
1881.....	36.32	110.80	187.84	117.25	135.15	78.59	413.43	49.44	12.45	93.05
1882.....	36.88	117.05	199.87	124.76	143.23	83.29	403.63	48.27	13.35	99.78
1883.....	36.43	117.21	198.16	123.70	136.18	79.16	354.63	42.41	11.77	87.97
1884.....	34.25	110.20	179.75	112.20	124.81	72.60	374.47	44.78	11.24	84.01
1885.....	25.14	80.89	168.53	105.20	110.92	64.50	375.19	44.86	13.70	102.39
1881-'85	38.70	108.43	186.83	116.62	130.65	75.63	384.27	45.95	12.50	93.42

Average prices of 100 articles at Hamburg, etc.—Continued.

V.—MINERALS AND METALS—Continued.

Years.	(79) Saltpeter, raw, Chili.		(80) Salt.		(81) Lime.		(82) Cement.		(83-85) Total.
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	
	<i>Marks.</i>		<i>Marks.</i>		<i>Marks.</i>		<i>Marks.</i>		
1847-'50.....	25.62	100.00	4.50	100.00	3.24	100.00	4.62	100.00	100.00
1851.....	27.60	107.73	4.02	89.33	3.00	92.59	5.58	120.78	95.79
1852.....	29.40	114.75	3.00	66.67	3.00	92.59	5.82	125.97	95.76
1853.....	34.02	132.79	3.48	77.33	2.82	87.04	5.40	116.88	100.24
1854.....	33.84	132.08	3.18	70.67	3.00	92.59	5.82	125.97	115.95
1855.....	45.48	177.52	3.18	70.67	3.00	92.59	5.64	122.08	119.10
1851-'55.....	34.08	133.02	3.36	74.67	2.94	90.74	5.64	122.08	107.03
1856.....	30.84	120.37	3.78	84.00	3.00	92.59	5.64	122.08	116.65
1857.....	35.40	138.17	4.08	90.67	3.00	92.59	5.70	123.38	124.58
1858.....	29.82	116.39	3.78	84.00	3.00	92.59	5.46	118.18	100.04
1859.....	27.54	107.49	3.90	86.67	3.36	103.70	5.16	111.69	108.57
1860.....	25.68	100.23	3.60	80.00	3.24	100.00	5.28	114.29	108.66
1856-'60.....	29.88	116.63	3.84	85.33	3.12	96.30	5.46	118.18	113.59
1861.....	23.76	92.74	3.72	82.67	3.18	98.15	5.34	115.58	102.40
1862.....	27.72	108.20	3.66	81.33	3.12	96.30	5.16	111.69	101.88
1863.....	26.76	104.45	3.24	72.00	3.30	101.85	5.10	110.39	102.92
1864.....	29.28	114.29	2.16	48.00	3.12	96.30	4.86	105.19	104.53
1865.....	24.96	97.42	1.98	44.00	3.00	92.59	4.92	106.49	98.36
1861-'65.....	26.52	103.51	2.94	65.33	3.12	96.30	5.10	110.39	102.11
1866.....	23.10	90.16	1.74	38.67	2.76	85.19	4.80	103.90	96.54
1867.....	21.72	84.78	1.74	38.67	2.70	83.33	4.68	107.79	93.28
1868.....	24.18	94.38	2.10	46.67	2.52	77.78	4.44	96.10	91.76
1869.....	30.36	118.50	1.92	42.67	2.58	79.63	4.32	93.51	93.33
1870.....	31.38	122.48	2.40	53.33	2.82	87.04	4.38	94.81	99.68
1866-'70.....	26.16	102.11	1.98	44.00	2.70	83.33	4.56	96.70	95.47
1871.....	31.08	121.81	2.94	65.33	2.40	74.07	4.34	93.94	101.85
1872.....	29.68	115.85	2.74	60.89	2.40	74.07	4.68	101.30	121.68
1873.....	28.96	113.04	3.64	80.89	5.04	155.56	6.26	135.50	140.69
1874.....	23.96	93.52	3.64	80.89	3.12	96.30	5.54	119.91	116.79
1875.....	23.14	90.32	2.82	62.67	3.32	102.47	5.14	111.26	107.49
1871-'75.....	27.36	106.79	3.16	70.22	3.26	100.62	4.80	103.90	116.99
1876.....	23.12	90.24	3.16	70.22	3.58	110.49	5.04	109.09	108.27
1877.....	27.76	108.35	2.82	62.67	3.46	106.79	4.98	107.79	98.87
1878.....	29.76	116.16	2.52	56.00	3.58	110.49	4.72	102.16	94.14
1879.....	28.28	110.38	3.26	50.23	3.40	104.94	4.74	102.60	84.28
1880.....	30.48	118.97	2.27	50.44	2.82	87.04	4.47	96.75	88.33
1876-'80.....	27.88	108.82	2.61	58.00	3.37	104.01	4.79	103.68	94.35
1881.....	28.70	112.02	2.10	46.67	2.68	82.73	4.43	95.89	84.87
1882.....	26.07	101.76	2.27	50.44	3.12	96.30	4.25	91.90	88.09
1883.....	22.37	87.31	2.09	46.44	3.02	93.21	4.48	96.97	83.93
1884.....	19.25	75.14	1.97	43.78	3.04	93.83	4.33	93.72	78.69
1885.....	20.48	79.93	1.74	38.67	2.52	77.78	4.19	90.69	74.23
1881-'85.....	22.37	91.22	2.68	45.11	2.88	88.89	4.34	93.94	81.55

Average prices of 100 articles at Hamburg, etc.—Continued.

VI.—TEXTILE MATERIALS.

Years.	(83) Cotton.		(84) Wool.		(85) Flax.		(86) Hemp.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 111.36	100.00	Marks. 360.24	100.00	Marks. 94.80	100.00	Marks. 71.82	100.00
1851	106.88	95.53	383.58	106.48	118.20	124.68	75.60	105.26
1852	100.58	90.14	386.60	101.77	110.22	122.50	76.02	105.85
1853	110.16	98.92	387.00	99.10	79.68	84.05	73.02	101.67
1854	90.80	81.36	377.64	104.83	74.64	78.73	101.22	140.94
1855	90.84	81.57	343.68	95.40	73.92	77.97	78.36	109.11
1851-'55	90.66	89.49	365.70	101.52	92.52	97.50	80.82	112.53
1856	108.84	97.74	394.38	109.48	85.74	90.44	68.58	95.49
1857	126.86	113.47	435.72	120.95	106.02	111.84	70.88	97.99
1858	116.28	104.42	407.28	113.06	112.20	118.35	60.78	84.68
1859	109.68	98.49	416.40	115.89	110.46	116.52	60.42	84.13
1860	102.80	91.92	432.30	120.00	134.64	142.03	64.92	90.39
1856-'60	112.68	110.19	417.24	115.83	109.80	115.82	65.04	90.56
1861	128.40	115.30	387.66	107.61	139.80	147.47	64.08	96.22
1862	236.64	212.50	417.00	115.76	142.26	150.06	66.18	92.15
1863	274.16	235.99	394.24	110.83	157.80	166.46	77.94	108.52
1864	436.02	391.54	384.20	92.77	135.80	142.72	75.42	106.01
1865	234.12	210.24	350.88	90.07	106.60	111.39	50.64	78.86
1861-'65	281.88	253.12	379.02	105.21	136.14	143.61	68.04	94.74
1866	262.14	225.40	331.14	91.92	160.32	178.61	68.70	95.60
1867	202.08	181.47	296.88	82.41	168.30	177.53	66.96	83.23
1868	155.52	139.66	312.78	86.83	167.82	177.03	75.90	105.68
1869	192.48	172.84	287.84	79.76	162.54	171.46	78.42	106.19
1870	172.92	154.47	304.44	84.51	151.56	159.87	70.08	97.58
1866-'70	196.86	176.78	306.48	85.08	163.92	172.91	72.00	100.25
1871	147.56	132.51	328.02	91.06	131.62	138.84	80.70	112.86
1872	167.22	150.16	387.38	107.53	128.44	135.49	77.28	107.60
1873	153.64	137.97	340.68	94.57	114.32	120.50	72.68	101.20
1874	148.10	132.99	301.22	81.62	115.30	121.62	79.40	110.55
1875	131.38	117.98	313.90	87.14	125.88	132.78	72.50	100.95
1871-'75	140.58	124.82	334.24	92.78	123.12	129.87	76.52	106.54
1876	111.08	99.75	270.42	75.07	119.02	125.55	68.42	95.27
1877	111.50	100.13	273.76	75.90	142.66	150.49	73.00	102.48
1878	111.24	99.89	302.28	83.91	122.52	129.24	62.66	87.25
1879	112.54	101.78	287.08	79.69	145.52	153.50	50.66	78.89
1880	122.40	109.91	284.75	79.04	90.37	95.33	57.09	79.49
1876-'80	113.91	102.29	283.66	78.74	124.02	130.82	63.69	88.68
1881	110.22	98.98	288.48	80.08	120.47	127.08	60.16	83.76
1882	111.78	100.88	280.50	72.84	111.90	118.04	59.72	83.15
1883	101.00	90.10	245.47	68.14	121.51	128.18	60.85	84.73
1884	102.91	92.41	200.72	55.72	138.86	146.48	64.99	90.49
1885	102.42	91.97	202.48	56.21	148.20	156.33	62.52	87.05
1881-'85	105.67	94.89	239.55	66.50	128.19	135.22	61.65	85.84

PRODUCTION OF THE PRECIOUS METALS.

Average prices of 100 articles at Hamburg, etc.—Continued.

VI.—TEXTILE MATERIALS—Continued.

Years.	(87) Silk.		(88) Cordage.		(89) Rags.		(92-99) Total.
	Per 100 kilo.	Index No.	Per 100 kilo.	Index No.	Per 100 kilo.	Index No.	
1847-'50.....	Marks. 3, 583. 64	100. 00	Marks. 64. 08	100. 00	Marks. 50. 00	100. 00	100. 00
1851.....	3, 813. 78	98. 71	67. 02	104. 59	23. 23	95. 49	104. 39
1852.....	3, 678. 18	95. 20	73. 20	114. 23	32. 22	105. 29	105. 61
1853.....	3, 590. 00	101. 72	67. 14	104. 78	36. 06	119. 80	107. 43
1854.....	3, 271. 92	94. 08	102. 00	159. 18	40. 32	181. 76	111. 04
1855.....	3, 186. 15	81. 17	108. 00	169. 48	33. 78	110. 39	103. 56
1851-'55.....	3, 565. 98	92. 30	83. 58	130. 43	34. 44	112. 55	105. 20
1856.....	2, 894. 68	74. 66	77. 40	120. 79	34. 14	111. 57	100. 02
1857.....	3, 815. 04	98. 74	78. 84	123. 03	36. 48	119. 23	112. 16
1858.....	3, 408. 00	88. 21	70. 62	110. 21	32. 52	106. 27	103. 59
1859.....	3, 758. 04	97. 27	71. 16	111. 05	33. 60	109. 80	104. 69
1860.....	3, 771. 60	97. 62	70. 98	110. 77	33. 18	108. 43	103. 74
1856-'60.....	3, 527. 46	91. 30	73. 80	115. 17	33. 96	110. 98	107. 12
1861.....	3, 522. 42	91. 17	70. 56	110. 11	35. 22	115. 10	110. 85
1862.....	2, 913. 00	75. 40	79. 92	124. 73	30. 48	99. 61	124. 31
1863.....	3, 594. 36	93. 03	85. 56	133. 53	35. 04	114. 51	131. 84
1864.....	3, 686. 12	94. 89	77. 88	121. 54	40. 20	131. 37	154. 25
1865.....	3, 967. 30	102. 42	72. 42	113. 01	33. 54	109. 61	117. 89
1861-'65.....	3, 580. 64	91. 38	77. 28	120. 60	34. 92	114. 12	131. 83
1866.....	4, 187. 84	107. 10	74. 28	115. 92	36. 72	120. 00	134. 94
1867.....	4, 942. 14	127. 91	79. 80	124. 53	39. 28	125. 16	130. 31
1868.....	5, 148. 73	133. 26	84. 78	132. 30	35. 34	115. 49	127. 18
1869.....	4, 968. 78	128. 60	82. 44	128. 65	37. 68	123. 14	130. 62
1870.....	4, 540. 08	117. 51	79. 44	123. 97	37. 38	122. 16	122. 67
1866-'70.....	4, 747. 50	122. 88	80. 16	125. 09	37. 68	121. 18	129. 17
1871.....	4, 537. 74	117. 45	82. 58	128. 87	34. 74	118. 53	119. 23
1872.....	5, 009. 88	129. 67	84. 36	131. 65	29. 82	97. 45	122. 79
1873.....	5, 012. 82	129. 74	93. 16	145. 38	32. 92	107. 58	119. 56
1874.....	3, 784. 24	97. 94	89. 42	139. 54	31. 62	103. 33	112. 89
1875.....	3, 585. 02	80. 32	90. 14	140. 67	35. 62	114. 44	111. 47
1871-'75.....	4, 335. 94	112. 22	87. 94	137. 23	32. 82	107. 25	117. 17
1876.....	3, 943. 88	102. 08	85. 14	132. 87	33. 10	108. 17	105. 54
1877.....	4, 214. 98	109. 09	79. 90	124. 78	29. 18	95. 86	108. 33
1878.....	3, 415. 48	88. 40	81. 40	127. 12	30. 70	100. 52	102. 38
1879.....	2, 890. 84	74. 82	69. 46	108. 40	28. 84	94. 25	98. 76
1880.....	3, 360. 21	86. 97	77. 10	120. 40	32. 39	105. 85	98. 72
1876-'80.....	3, 565. 08	92. 27	78. 64	122. 72	30. 85	100. 62	102. 33
1881.....	3, 189. 04	82. 54	74. 32	115. 98	32. 62	106. 60	99. 29
1882.....	3, 026. 54	78. 33	74. 82	115. 98	29. 82	97. 45	95. 10
1883.....	3, 326. 14	86. 09	75. 73	118. 18	29. 23	95. 52	95. 93
1884.....	3, 092. 54	80. 04	78. 03	121. 77	28. 28	92. 25	97. 02
1885.....	2, 902. 70	75. 13	77. 65	121. 18	25. 51	88. 37	95. 89
1881-'85.....	3, 197. 89	80. 48	76. 01	118. 62	29. 06	95. 03	93. 65

Average prices of 100 articles at Hamburg, etc.—Continued.

VII.—MISCELLANEOUS ARTICLES.

Years.	(90) Guano.		(91) India-rub-ber.		(92) Gutta-per-cha.		(93) Rosin.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	Marks. 19. 62	100. 00	Marks. 205. 62	100. 00	Marks. 193. 44	100. 00	Marks. 8. 70	100. 00
1851	21. 00	107. 03	209. 53	146. 67	172. 98	89. 42	8. 82	101. 88
1852	19. 02	94. 94	282. 20	106. 62	178. 58	91. 28	7. 80	89. 06
1853	21. 24	108. 26	292. 04	147. 60	215. 34	111. 52	10. 20	117. 24
1854	23. 88	121. 71	323. 12	148. 00	244. 38	126. 33	10. 86	124. 88
1855	23. 40	119. 27	272. 28	102. 51	170. 64	88. 21	9. 48	103. 97
1851-'55	21. 72	110. 70	346. 02	130. 27	195. 96	101. 30	9. 42	108. 28
1856	23. 24	118. 96	323. 60	86. 06	173. 04	89. 45	9. 06	104. 14
1857	26. 52	135. 17	238. 12	85. 88	202. 03	104. 44	10. 50	121. 88
1858	24. 54	125. 08	222. 42	89. 74	169. 02	87. 38	9. 96	111. 03
1859	21. 72	110. 70	407. 54	153. 35	305. 70	168. 03	10. 02	115. 17
1860	24. 30	123. 85	462. 70	170. 43	304. 32	157. 32	9. 54	109. 66
1856-'60	24. 06	122. 63	307. 86	115. 90	290. 82	119. 32	9. 78	112. 41
1861	22. 86	116. 51	296. 26	111. 16	273. 60	141. 44	15. 18	174. 48
1862	25. 74	131. 19	337. 02	126. 88	284. 52	147. 08	41. 76	486. 00
1863	24. 12	122. 94	314. 94	118. 57	263. 90	185. 12	47. 16	542. 07
1864	23. 46	119. 57	283. 32	101. 02	438. 96	226. 92	52. 82	604. 83
1865	24. 36	124. 16	274. 14	103. 21	326. 48	173. 95	26. 04	299. 31
1861-'65	24. 12	122. 94	297. 96	112. 18	339. 48	175. 50	30. 54	420. 00
1866	23. 46	119. 57	392. 76	147. 87	250. 26	129. 37	17. 76	204. 14
1867	20. 28	103. 36	331. 92	124. 96	292. 92	151. 43	17. 46	200. 69
1868	20. 70	105. 50	350. 34	131. 90	274. 44	141. 87	12. 84	147. 59
1869	24. 12	122. 94	267. 84	100. 84	197. 28	101. 99	10. 98	126. 21
1870	21. 54	109. 79	348. 06	131. 04	366. 18	189. 30	11. 84	130. 34
1866-'70	22. 02	112. 23	338. 16	127. 31	276. 24	142. 80	14. 10	162. 07
1871	23. 44	119. 47	385. 64	145. 18	310. 42	160. 47	17. 26	198. 39
1872	24. 60	125. 38	438. 54	165. 10	301. 12	155. 67	19. 20	220. 09
1873	14. 42	73. 50	406. 50	153. 04	310. 92	160. 73	16. 52	189. 89
1874	14. 26	72. 68	382. 12	125. 04	296. 92	153. 49	18. 54	155. 63
1875	12. 94	65. 95	318. 14	110. 77	225. 50	116. 57	11. 86	136. 37
1871-'75	17. 94	91. 44	376. 18	141. 62	288. 98	149. 39	15. 58	179. 06
1876	15. 32	78. 08	324. 48	122. 16	345. 22	178. 46	11. 46	131. 72
1877	12. 74	64. 93	298. 41	111. 60	404. 26	208. 98	11. 62	133. 56
1878	14. 58	74. 81	309. 70	116. 60	412. 52	213. 25	10. 28	118. 16
1879	11. 84	57. 80	361. 50	136. 10	335. 52	173. 45	9. 46	108. 74
1880	12. 03	61. 31	500. 51	188. 43	289. 66	149. 74	10. 80	124. 14
1876-'80	13. 20	67. 28	358. 53	134. 98	357. 44	184. 78	10. 72	123. 22
1881	11. 88	60. 55	425. 76	160. 29	314. 35	162. 50	12. 26	140. 92
1882	15. 94	81. 24	455. 34	171. 43	290. 88	150. 36	12. 10	139. 08
1883	14. 04	71. 56	485. 10	182. 63	274. 90	142. 11	10. 51	120. 80
1884	11. 99	61. 11	363. 29	138. 77	288. 35	149. 06	8. 66	99. 54
1885	11. 07	56. 42	368. 20	138. 62	261. 60	135. 24	8. 06	92. 64
1881-'85	12. 06	66. 16	419. 54	157. 95	296. 01	147. 85	10. 32	118. 62

PRODUCTION OF THE PRECIOUS METALS.

Average prices of 100 articles at Hamburg, etc.—Continued.

VII.—MISCELLANEOUS ARTICLES—Continued.

Years.	(94) Potash, prussiate and chromate of.		(95) Pitch.		(96) Potash, carbonate of		(97) Soda.	
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.
1847-'50	<i>Marks.</i> 175.92	100.00	<i>Marks.</i> 16.32	100.00	<i>Marks.</i> 59.28	100.00	<i>Marks.</i> 20.14	100.00
1851.....	139.70	79.41	22.80	139.71	51.78	87.35	18.42	91.46
1852.....	138.15	78.53	21.60	132.85	45.42	76.62	17.62	87.49
1853.....	150.67	85.65	18.72	114.71	49.03	82.69	18.08	89.77
1854.....	145.98	82.98	23.64	144.85	63.43	107.09	17.30	85.90
1855.....	149.29	84.86	22.50	137.87	66.96	112.96	16.67	82.77
1851-'55	145.23	82.55	21.84	133.82	55.32	93.32	17.58	87.29
1856.....	168.28	95.71	17.22	105.51	67.68	114.17	18.15	90.12
1857.....	173.47	98.61	16.32	100.00	75.96	128.14	22.30	110.72
1858.....	166.28	94.62	16.26	99.63	52.74	88.97	21.49	106.70
1859.....	204.97	116.51	18.96	116.18	55.26	93.22	21.12	104.87
1860.....	190.93	108.63	16.62	101.84	48.48	81.78	18.58	92.25
1856-'60	181.65	103.26	17.10	104.78	60.00	101.21	20.40	101.29
1861.....	168.15	94.45	22.98	140.81	54.42	91.80	16.75	83.17
1862.....	143.22	81.41	27.50	229.78	55.80	94.12	15.22	75.57
1863.....	149.24	84.83	23.84	224.93	57.06	96.25	14.75	73.24
1864.....	135.93	77.27	21.86	195.22	52.90	89.07	14.77	73.34
1865.....	119.40	67.87	20.10	122.16	52.38	88.36	15.57	77.31
1861-'65	142.65	81.09	20.18	184.93	54.48	91.90	15.38	76.37
1866.....	120.95	68.75	19.50	119.49	45.12	79.11	19.46	96.62
1867.....	107.40	61.05	16.92	103.68	45.18	76.21	18.15	90.12
1868.....	111.14	63.18	15.60	95.69	45.60	76.92	14.80	73.49
1869.....	107.42	61.06	20.22	122.90	46.66	79.05	14.10	70.61
1870.....	106.14	60.33	24.36	149.26	52.56	88.66	13.32	66.14
1866-'70	109.32	62.14	19.32	118.38	47.04	79.35	15.84	78.65
1871.....	141.28	80.31	17.54	107.48	56.02	94.50	16.32	81.03
1872.....	164.34	110.47	20.94	128.31	61.66	104.35	25.08	124.53
1873.....	181.69	103.28	21.96	134.56	66.22	111.71	19.57	97.17
1874.....	136.47	77.58	24.70	151.35	55.78	94.09	17.08	84.61
1875.....	118.82	67.54	21.96	134.66	52.10	87.89	15.16	75.27
1871-'75	150.52	85.66	21.42	181.25	56.40	98.52	18.56	92.15
1876.....	99.22	56.40	18.06	110.66	50.52	85.23	15.96	79.25
1877.....	95.05	54.03	18.06	110.66	47.46	80.06	14.52	72.10
1878.....	68.81	50.48	17.62	107.97	43.64	73.62	12.65	62.81
1879.....	116.36	66.14	14.68	91.18	36.16	61.00	12.09	60.08
1880.....	118.33	67.26	16.62	101.84	36.89	61.39	13.10	65.04
1876-'80	102.17	58.08	17.05	104.47	42.83	72.25	13.70	68.02
1881.....	120.04	68.24	15.78	96.69	39.10	65.96	12.05	59.83
1882.....	129.68	73.72	19.53	119.67	42.62	72.23	11.89	59.04
1883.....	111.34	63.29	17.88	109.56	40.71	68.67	11.06	54.92
1884.....	74.52	42.60	17.81	109.13	38.49	64.93	10.42	51.74
1885.....	99.95	56.82	11.88	69.73	34.69	58.35	8.85	43.94
1881-'85	107.11	60.89	16.48	100.98	39.14	66.02	10.85	52.67

Average prices of 100 articles at Hamburg, etc.—Continued.

VII.—MISCELLANEOUS ARTICLES—Continued.

Years.	(98) Tallow candles.		(99) Tar.		(100) Wax.		(90-100) Total.
	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	Per 100 kilos.	Index No.	
1847-'50.....	Marks. 216.60	100.00	Marks. 13.86	100.00	Marks. 268.08	100.00	100.00
1851.....	192.42	88.84	13.62	98.27	306.18	114.21	103.98
1852.....	184.02	84.96	12.42	89.61	300.00	111.91	95.09
1853.....	208.20	96.12	12.00	86.58	313.44	116.92	105.17
1854.....	237.18	109.50	20.64	148.92	304.98	113.76	119.44
1855.....	240.78	111.16	20.22	145.89	298.80	111.46	109.63
1851-'55.....	212.52	98.12	15.78	113.85	304.68	113.65	106.65
1856.....	213.00	98.34	12.24	88.31	307.44	114.68	100.50
1857.....	217.88	100.58	12.18	87.88	309.00	115.26	103.01
1858.....	205.14	94.71	11.76	84.85	321.96	120.10	99.70
1859.....	212.10	97.92	13.50	97.40	289.32	107.92	115.57
1860.....	211.08	97.45	10.62	119.91	327.48	122.16	116.83
1856-'60.....	211.88	97.81	13.26	95.67	311.04	116.03	108.21
1861.....	203.10	93.77	22.08	159.31	292.92	109.27	119.65
1862.....	190.56	87.98	24.06	173.59	266.22	99.31	156.99
1863.....	167.22	77.20	18.18	131.17	283.26	105.66	161.36
1864.....	145.38	67.12	14.70	106.06	342.90	127.91	162.58
1865.....	144.48	66.70	12.66	91.34	311.70	116.27	121.06
1861-'65.....	170.16	78.56	18.36	132.47	299.40	111.68	144.33
1866.....	154.20	71.19	11.22	80.95	295.62	110.27	111.80
1867.....	156.00	72.02	11.70	84.41	325.80	121.53	108.12
1868.....	157.62	72.77	12.60	90.91	305.64	114.01	101.25
1869.....	154.20	71.19	14.10	101.75	324.30	120.97	98.17
1870.....	148.92	68.75	15.90	114.72	308.22	114.97	111.21
1866-'70.....	154.20	71.19	13.08	94.37	311.94	116.36	105.90
1871.....	149.12	68.85	16.42	118.47	316.66	118.12	117.48
1872.....	145.02	64.95	18.90	136.36	204.14	76.15	128.54
1873.....	148.98	68.78	20.34	146.75	190.80	71.17	119.14
1874.....	148.94	68.78	20.32	146.61	279.48	104.25	112.21
1875.....	138.68	64.03	18.04	130.16	251.60	93.85	98.74
1871-'75.....	146.14	67.47	18.80	135.64	248.54	92.71	114.98
1876.....	138.24	63.82	17.14	123.67	241.70	90.16	101.78
1877.....	138.98	64.16	16.66	120.20	207.74	77.49	99.80
1878.....	132.16	61.02	14.46	104.33	233.36	87.05	97.24
1879.....	128.14	58.24	14.62	105.48	198.74	74.13	90.21
1880.....	114.18	52.69	14.63	105.56	187.88	70.08	85.23
1876-'80.....	129.93	59.99	15.50	111.83	213.88	79.78	96.79
1881.....	109.97	50.77	14.60	105.34	194.88	72.69	94.89
1882.....	110.42	50.98	15.18	109.52	168.46	62.84	90.10
1883.....	118.00	54.76	15.16	109.38	191.65	71.49	85.38
1884.....	119.84	55.33	12.73	91.85	190.92	71.22	84.82
1885.....	116.23	53.66	17.73	127.92	164.93	61.52	81.35
1881-'85.....	115.01	53.10	15.08	108.83	182.16	67.95	91.11

Average prices of 14 British manufactured articles of export during the period from 1851 to 1885, compared to the average prices of the years 1847-'50, with the corresponding index numbers, ascertained from the values declared for the British trade statistics.

COTTON MANUFACTURES.

Years.	(1) Cotton yarn.		(2) Piece goods, plain.		(3) Piece goods, printed.		(4) Stockings and socks.		(5) Thread for sewing.	
	Per pound.	Index No.	Per yard.	Index No.	Per yard.	Index No.	Per doz. pairs.	Index No.	Per pound.	Index No.
1847-'50	d. 11. 20	100. 00	d. 3. 10	100. 00	d. 4. 37	100. 00	s. 7. 85	100. 00	s. 1. 80	100. 00
1851	11. 06	98. 75	2. 92	94. 10	4. 26	97. 48	7. 80	99. 36	2. 07	109. 52
1852	10. 98	98. 04	2. 91	93. 87	4. 22	96. 57	7. 14	90. 96	2. 20	116. 40
1853	11. 22	100. 18	3. 08	99. 35	4. 31	98. 68	6. 82	86. 88	2. 27	120. 11
1854	10. 92	97. 50	2. 85	91. 94	4. 20	96. 11	6. 35	80. 89	2. 27	120. 11
1855	10. 44	93. 21	2. 79	90. 00	4. 01	91. 76	6. 66	84. 84	2. 29	121. 16
1851-'55	10. 92	97. 50	2. 91	93. 87	4. 20	96. 11	6. 95	88. 54	2. 22	117. 46
1856	10. 62	94. 82	2. 88	92. 90	4. 00	92. 91	6. 11	77. 83	2. 17	114. 81
1857	11. 81	105. 45	2. 90	94. 45	4. 18	95. 65	5. 24	66. 75	2. 25	119. 05
1858	11. 49	102. 59	2. 90	93. 55	4. 07	93. 14	6. 43	81. 91	2. 32	123. 28
1859	11. 81	105. 45	3. 07	99. 03	4. 23	96. 80	5. 75	73. 25	2. 45	129. 63
1860	12. 00	107. 14	3. 09	99. 68	4. 21	96. 34	5. 93	75. 54	2. 35	124. 34
1856-'60	11. 55	103. 12	2. 90	96. 45	4. 15	94. 97	5. 89	75. 03	2. 31	122. 22
1861	12. 54	111. 96	3. 02	97. 42	4. 11	94. 05	5. 65	71. 97	2. 25	119. 05
1862	15. 97	142. 59	3. 66	118. 06	4. 67	104. 58	6. 36	81. 02	2. 71	143. 39
1863	26. 01	232. 23	4. 97	160. 32	5. 71	130. 66	6. 98	84. 92	3. 37	178. 91
1864	28. 80	257. 14	5. 79	186. 77	6. 32	144. 62	8. 15	103. 62	3. 58	186. 42
1865	23. 98	214. 11	5. 05	162. 90	5. 81	132. 95	7. 84	90. 87	3. 26	172. 49
1861-'65	21. 46	191. 61	4. 50	145. 16	5. 30	121. 28	7. 00	89. 17	3. 03	160. 32
1866	23. 66	211. 25	5. 09	164. 19	5. 91	135. 21	8. 32	105. 99	3. 36	177. 73
1867	21. 11	188. 48	4. 13	133. 23	5. 28	120. 82	7. 06	89. 94	3. 43	181. 48
1868	20. 27	180. 98	3. 67	118. 39	4. 83	110. 53	6. 63	84. 46	3. 37	178. 31
1869	20. 04	178. 93	3. 79	122. 26	4. 91	112. 36	6. 82	86. 88	3. 36	177. 78
1870	18. 92	168. 93	3. 55	114. 52	4. 75	108. 70	6. 79	86. 50	3. 32	175. 66
1866-'70	20. 80	185. 71	4. 06	130. 65	5. 14	117. 62	7. 12	90. 70	3. 37	178. 31
1871	18. 66	166. 61	3. 33	107. 42	4. 71	107. 78	6. 50	82. 80	3. 26	172. 42
1872	18. 87	168. 48	3. 51	113. 23	4. 92	112. 59	7. 08	90. 19	3. 48	184. 13
1873	17. 76	158. 57	3. 45	111. 29	4. 78	109. 38	7. 40	94. 27	3. 54	187. 30
1874	15. 79	140. 98	3. 22	103. 87	4. 69	107. 32	7. 09	90. 32	3. 53	186. 77
1875	14. 66	130. 89	3. 13	100. 97	4. 77	109. 15	6. 72	85. 61	3. 66	193. 65
1871-'75	17. 15	153. 13	3. 33	107. 42	4. 77	109. 15	6. 96	88. 66	3. 49	184. 66
1876	13. 19	117. 77	2. 89	91. 20	4. 48	102. 52	6. 50	83. 95	3. 66	193. 65
1877	12. 85	114. 73	2. 83	91. 29	4. 21	98. 63	6. 23	79. 36	3. 22	170. 37
1878	12. 47	111. 34	2. 76	89. 73	4. 18	95. 65	6. 48	82. 55	3. 15	166. 67
1879	12. 33	110. 09	2. 65	85. 48	3. 91	89. 47	6. 06	84. 84	3. 13	165. 61
1880	13. 25	118. 30	2. 73	88. 06	3. 79	86. 73	6. 55	83. 44	3. 17	167. 72
1876-'80	12. 82	114. 46	2. 70	89. 03	4. 13	94. 51	6. 50	82. 80	3. 27	173. 02
1881	12. 29	110. 62	2. 65	85. 48	3. 68	84. 21	5. 82	74. 14	2. 99	156. 29
1882	12. 96	115. 71	2. 71	87. 42	3. 73	85. 35	6. 21	79. 11	3. 10	164. 02
1883	12. 25	109. 37	2. 61	84. 19	3. 62	82. 84	6. 28	80. 00	3. 37	173. 02
1884	12. 24	109. 29	2. 47	79. 68	3. 60	82. 88	6. 25	79. 62	3. 37	173. 31
1885	11. 58	103. 30	2. 33	75. 16	3. 47	79. 41	6. 00	76. 43	3. 15	166. 67
1881-'85	12. 28	109. 64	2. 55	82. 26	3. 62	82. 84	6. 11	77. 63	3. 18	168. 25

Average prices of 14 British manufactured articles, etc.—Continued.

COTTON MANUFACTURES—Continued.

Years.	(6) Glass, common bottles.		(7) Linen yarn.		(8) Linen, plain.		(9) Linen sail cloth and sails.		(10) Woolen and worsted yarn.	
	Per cwt.	Index No.	Per pound.	Index No.	Per yard.	Index No.	Per yard.	Index No.	Per pound.	Index No.
1847-'50.....	s. 11.60	100.00	d. 11.05	100.00	d. 7.00	100.00	d. 9.24	100.00	d. 23.37	100.00
1851.....	10.60	91.38	12.12	103.68	7.02	100.29	8.94	96.75	24.29	103.94
1852.....	10.46	90.17	11.44	103.53	6.92	98.86	8.97	97.06	24.14	103.29
1853.....	10.85	93.53	12.11	109.59	7.65	109.29	10.85	117.42	25.04	107.15
1854.....	11.42	98.45	12.81	115.93	7.91	113.00	12.24	132.47	23.70	101.67
1855.....	10.89	93.88	12.32	111.49	7.59	108.43	10.85	117.42	22.90	97.99
1851-'56.....	10.84	93.45	12.16	110.05	7.42	106.00	10.87	112.23	24.03	102.82
1856.....	11.07	95.43	13.05	118.10	7.17	102.43	10.95	118.51	24.69	103.65
1857.....	11.07	95.43	13.71	124.07	7.35	105.00	10.46	113.20	27.00	118.10
1858.....	11.11	95.78	13.08	118.37	7.34	104.86	10.45	113.10	28.58	122.29
1859.....	10.54	90.86	14.73	133.30	7.27	103.86	11.56	125.11	31.30	133.98
1860.....	10.30	88.79	13.85	125.34	7.22	103.14	10.98	118.83	32.46	138.90
1856-'60.....	10.82	93.28	13.68	123.80	7.27	103.86	10.88	117.75	28.93	123.80
1861.....	10.16	87.59	13.91	125.88	7.16	102.29	11.89	128.68	30.13	128.93
1862.....	10.08	86.90	13.65	123.53	6.84	97.71	12.28	132.90	32.47	138.94
1863.....	10.18	87.76	15.80	142.99	7.55	107.86	12.58	136.15	36.92	157.98
1864.....	10.01	86.29	17.90	161.99	8.39	119.86	13.67	147.94	40.80	172.44
1865.....	9.97	85.95	16.54	149.68	8.06	115.14	12.73	137.77	40.81	172.49
1861-'65.....	10.08	86.90	15.56	140.81	7.60	108.57	12.63	136.69	36.08	154.17
1866.....	10.13	87.33	16.95	153.39	8.23	117.57	12.75	137.99	41.06	175.70
1867.....	9.98	86.03	17.29	156.47	7.79	111.29	12.88	139.39	37.28	159.52
1868.....	9.93	85.60	16.91	153.03	7.50	107.14	13.39	144.91	34.78	148.82
1869.....	9.91	85.43	16.19	146.52	7.06	100.86	14.20	153.68	35.74	152.98
1870.....	9.99	86.12	14.42	130.50	7.15	102.14	12.65	136.90	33.73	144.33
1866-'70.....	9.99	86.12	10.35	147.96	7.55	107.86	13.17	142.53	36.52	156.27
1871.....	9.71	83.71	14.69	132.94	7.39	105.57	12.94	140.04	33.49	143.90
1872.....	9.81	84.57	16.40	148.42	7.43	106.14	14.29	154.65	36.91	157.94
1873.....	10.18	87.76	16.51	149.41	7.62	108.86	13.97	151.19	37.20	159.44
1874.....	10.41	89.74	15.17	137.29	7.80	111.43	14.41	155.95	38.14	163.20
1875.....	11.08	96.52	15.95	144.34	7.59	108.43	14.86	155.41	38.58	165.08
1871-'75.....	10.24	88.28	15.74	142.44	7.57	108.14	13.99	151.41	36.88	157.81
1876.....	11.15	96.12	15.62	141.86	7.14	102.00	14.37	155.52	34.30	147.03
1877.....	10.99	94.74	16.13	145.97	6.93	99.00	13.71	148.38	32.12	137.44
1878.....	10.71	92.33	15.76	142.62	7.20	102.86	12.96	146.26	30.07	128.67
1879.....	10.20	87.93	14.82	134.12	7.08	101.14	11.69	126.52	26.71	114.29
1880.....	10.10	87.07	14.25	128.96	7.38	105.43	12.15	131.49	30.33	129.78
1876-'80.....	10.63	91.04	15.32	138.64	7.15	102.14	12.98	140.48	30.72	131.45
1881.....	9.92	85.52	13.91	125.88	7.03	100.43	12.01	129.98	26.04	111.42
1882.....	9.55	82.33	13.71	124.07	6.89	98.43	12.44	134.03	25.62	109.03
1883.....	9.27	79.91	14.86	129.95	6.95	99.29	11.73	126.95	23.41	100.17
1884.....	9.30	80.17	12.95	126.24	6.62	94.57	10.95	118.51	23.78	101.75
1885.....	9.57	82.50	14.26	129.05	6.35	90.71	10.83	117.21	24.19	103.51
1881-'85.....	9.52	82.07	14.04	127.06	6.77	96.71	11.59	125.43	24.61	105.31

Average prices of 14 British manufactured articles, etc.—Continued.

WOOLEN AND WORSTED MANUFACTURES.

Years.	(11) Cloths, etc.		(12) Flannels, etc.		(13) Worsted stuffs.		(14) Carpets, etc.		(1-14) Total
	Per yard.	Index No.	Per yard.	Index No.	Per yard.	Index No.	Per yard.	Index No.	
1847-'50.....	d. 29.24	100.00	d. 14.92	100.00	d. 11.98	100.00	d. 32.42	100.00	100.00
1851.....	34.82	94.88	14.15	94.84	9.83	82.05	35.28	108.82	97.98
1852.....	24.56	83.99	13.91	93.23	9.26	77.80	32.56	100.43	95.98
1853.....	23.10	80.26	14.62	97.99	10.52	87.81	29.60	91.30	100.61
1854.....	24.43	83.55	13.18	88.84	10.06	83.97	29.02	89.54	99.53
1855.....	26.30	89.95	15.25	102.21	9.50	79.20	30.52	94.14	98.27
1851-'55.....	25.24	96.32	14.22	95.81	9.83	82.05	31.40	96.85	98.47
1856.....	24.34	83.24	14.70	98.93	10.07	84.06	32.22	99.38	98.50
1857.....	24.24	83.24	16.01	107.31	10.28	85.81	33.06	101.97	101.25
1858.....	25.80	88.54	15.21	101.94	10.42	88.98	28.90	98.37	100.91
1859.....	29.09	99.49	15.85	102.88	11.02	91.99	30.88	95.25	105.77
1860.....	30.12	103.01	15.74	105.50	11.32	94.49	31.55	97.32	105.60
1856-'60.....	26.76	91.52	15.41	103.28	10.62	88.65	31.14	96.05	102.41
1861.....	29.81	101.95	17.80	119.33	11.09	100.08	30.01	92.57	105.84
1862.....	30.36	103.83	18.64	124.68	12.98	108.25	29.85	92.38	114.22
1863.....	34.28	117.24	19.59	131.80	12.07	100.75	31.09	95.90	132.45
1864.....	35.74	125.65	19.92	135.51	13.84	115.53	34.50	106.42	146.53
1865.....	37.70	128.93	19.65	131.03	13.76	114.56	36.00	111.04	137.40
1861-'65.....	33.78	115.53	19.10	128.03	12.98	107.93	32.31	99.06	127.56
1866.....	39.15	133.89	19.24	136.95	14.04	117.20	38.45	118.60	140.36
1867.....	40.99	140.18	18.54	124.26	14.54	121.37	39.62	122.21	133.91
1868.....	36.66	125.38	18.17	121.78	13.99	116.78	35.50	109.78	127.56
1869.....	36.37	124.38	17.68	118.50	14.52	121.20	36.45	112.43	128.15
1870.....	35.17	120.28	17.28	115.82	14.03	117.11	35.67	110.02	122.68
1866-'70.....	37.67	123.83	18.18	121.85	14.22	118.70	37.16	114.62	130.55
1871.....	37.52	123.32	17.65	117.63	14.02	117.03	36.10	111.35	122.64
1872.....	41.19	140.87	17.65	118.30	14.54	121.37	38.93	120.08	130.07
1873.....	41.00	140.22	18.10	121.31	12.11	101.09	38.64	119.19	128.52
1874.....	39.53	135.19	19.76	132.44	10.93	91.24	38.60	119.06	126.06
1875.....	39.09	133.69	18.47	123.79	10.04	88.81	37.00	114.13	124.96
1871-'75.....	39.67	135.67	18.31	122.72	12.45	108.92	37.85	116.75	120.44
1876.....	38.25	130.81	17.52	117.43	9.90	82.64	34.75	107.19	110.23
1877.....	35.72	122.16	17.58	117.83	9.52	79.47	31.52	97.22	114.04
1878.....	34.53	118.09	16.86	113.00	9.28	77.46	30.44	93.40	111.03
1879.....	31.89	109.06	16.59	111.19	8.90	74.29	28.83	88.93	105.93
1880.....	32.34	110.60	16.45	110.25	9.15	76.38	29.16	89.94	108.15
1876-'80.....	34.55	118.16	17.00	113.94	9.35	78.05	30.94	95.43	111.70
1881.....	32.55	111.32	15.18	101.74	9.04	75.48	28.78	88.77	103.08
1882.....	34.18	116.89	15.13	101.41	9.65	80.55	28.14	86.80	104.72
1883.....	38.80	130.98	14.82	99.33	9.94	82.97	28.24	87.11	104.72
1884.....	41.42	141.66	13.98	93.70	9.64	80.47	26.16	80.60	103.26
1885.....	40.23	137.59	13.08	87.67	9.35	78.05	25.74	79.40	100.48
1881-'85.....	37.34	127.70	14.44	96.78	9.52	79.47	27.41	84.55	103.28

Index numbers of the average prices of the 114 articles, and of each of the 8 groups of articles, during the period from 1851 to 1885, compared to the average prices of the years 1847-50.

Years.	Products of agriculture, etc.	Animal and fish products.	Southern products, etc.	Tropical products.	Minerals and metals.	Textile materials.	Miscellaneous.	British articles of export.	Total.
1847-50.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1851.....	99.02	110.38	90.09	99.94	95.70	104.39	103.98	97.98	100.21
1852.....	110.71	108.68	95.33	99.95	95.76	105.01	95.09	95.98	101.09
1853.....	128.18	114.94	124.78	115.28	109.24	101.43	105.17	100.61	113.09
1854.....	150.49	121.12	112.91	118.17	115.95	111.64	119.44	99.53	121.25
1855.....	158.82	123.54	142.03	121.02	119.10	103.58	109.63	98.27	124.23
1851-55.....	129.99	114.79	110.43	110.97	107.03	105.20	106.65	98.47	112.22
1856.....	149.03	127.61	155.95	123.95	116.65	100.02	100.50	98.50	123.27
1857.....	138.11	140.18	169.32	140.32	124.58	112.18	108.01	101.25	130.11
1858.....	119.92	127.02	120.69	112.76	109.04	103.59	99.70	100.91	113.52
1859.....	119.48	130.69	113.40	115.74	108.57	104.69	115.57	105.77	116.34
1860.....	133.75	133.75	120.86	120.28	108.66	108.74	116.83	105.60	120.96
1856-60.....	131.84	132.31	134.73	122.61	113.59	107.12	108.21	102.41	120.91
1861.....	131.46	124.79	122.08	117.19	102.40	110.85	119.65	105.84	118.10
1862.....	126.80	127.19	118.93	117.28	101.88	124.31	156.99	114.22	122.65
1863.....	120.12	124.12	114.97	116.87	102.92	151.84	161.36	133.45	125.49
1864.....	117.89	129.21	109.41	125.74	104.53	154.26	162.58	146.53	129.28
1865.....	126.48	135.23	114.01	116.11	98.93	117.80	121.06	137.80	122.63
1861-65.....	124.46	128.24	114.13	118.64	102.11	131.83	144.33	127.56	123.59
1866.....	137.64	135.64	128.30	117.90	96.54	134.94	111.30	140.36	125.85
1867.....	146.38	132.68	126.44	114.35	93.28	130.31	108.13	133.91	124.44
1868.....	141.50	133.48	120.75	116.75	91.76	127.18	101.25	127.56	121.90
1869.....	132.40	143.25	115.58	122.10	96.33	130.52	98.17	124.15	123.38
1870.....	131.23	139.32	118.57	120.56	99.68	122.87	111.21	122.68	122.87
1866-70.....	137.74	136.35	121.54	118.82	95.47	129.17	105.90	130.55	123.57
1871.....	144.76	144.14	122.99	120.22	101.85	119.23	117.48	122.64	127.03
1872.....	144.17	155.82	125.36	130.25	121.63	122.79	128.54	130.07	135.62
1873.....	146.21	156.72	132.15	134.82	140.60	119.58	119.14	128.52	138.28
1874.....	150.99	157.76	145.02	136.74	116.70	112.80	112.21	126.06	136.20
1875.....	138.16	158.59	131.85	132.11	107.40	111.47	98.74	124.96	129.85
1871-75.....	144.90	154.57	131.50	130.72	116.90	117.17	114.98	126.44	133.29
1876.....	141.06	155.79	128.69	129.74	196.27	105.54	101.78	119.23	128.33
1877.....	145.34	152.51	140.55	130.29	96.87	108.33	99.80	114.04	137.70
1878.....	132.50	141.53	134.34	125.61	94.14	102.33	97.24	111.03	120.60
1879.....	132.92	137.60	139.10	123.34	84.28	98.76	90.21	105.93	117.10
1880.....	138.11	147.30	154.65	122.92	88.93	96.72	95.23	108.15	121.89
1876-80.....	138.12	146.76	138.91	126.38	94.35	102.33	94.79	111.70	123.07
1881.....	137.50	151.21	146.57	122.60	81.87	99.29	94.89	103.08	121.07
1882.....	138.45	155.17	139.23	122.47	86.99	95.10	90.10	104.72	123.14
1883.....	143.33	156.40	142.38	120.17	82.93	95.93	95.38	104.72	123.24
1884.....	123.85	150.26	120.16	117.90	78.69	97.02	84.82	103.36	114.25
1885.....	110.75	140.45	123.78	116.39	74.23	95.89	81.35	100.48	108.72
1881-85.....	130.77	150.65	134.41	119.91	81.55	96.65	91.11	103.28	117.68

NOTES TO THE TABLES OF AVERAGE PRICES.

Wheat.—The average yearly price during the period 1851-'85 varied from 31.20 marks in 1855 to 15.33 in 1885. The average price for periods of five years varied between 23.72 marks in the years 1871-'75 and 18.68 marks in the years 1881-'85. The price in 1885 was lower by 4.11 marks (21 per cent.) than in the years 1847-'50. It was lower by 8.39 marks (35 per cent.) than in the years 1871-'75.

Barley.—The price varied from 23.28 marks in 1855 to 12.21 marks in 1885. The five-year period price varied from 18.15 marks in 1866-'70 to 15.30 marks in 1881-'85. The price in 1885 was lower by 0.03 marks ($\frac{1}{2}$ per cent.) than in 1847-'50, and was lower by 5.35 marks (30 per cent.) than in 1871-'75.

Potatoes.—The price varied from 7.90 marks in 1879 to 3.60 marks in 1885. The five-year period price varied from 7.51 marks in 1876-'80 to 5.31 marks in 1856-'60. The price in 1885 was lower by 0.08 marks (1 per cent.) than in 1847-'50, and was lower by 1.19 marks (18 per cent.) than in 1871-'75. When the potato crop is poor, an increase in the import of Indian corn for the manufacture of spirits prevents an excessive rise in the price of potatoes.

Hops.—No commodity shows such enormous fluctuations in price as hops. The price varied from 464.23 marks in 1883 to 119.16 in 1858. The five-year period price varied from 319 marks in 1881-'85, to 167.88 marks in 1856-'60. The price in 1885 was higher by 128.35 marks (143 per cent.) than in 1847-'50, and it was lower by 86.57 marks (28 per cent.) than in 1871-'75. The investigations of Imperial Bureau of Statistika show that the average price of ordinary hops, net weight, in Nürnberg was 550.83 marks in 1883, and in 1885 was 104.17 marks. The general rise in the price of hops during the last two decades is ascribed chiefly to the great increase in the consumption of beer. Yet the cultivation of hops has greatly extended. The increase in the production of hops in Germany, from 1874 to 1883, was from 250,000 to 400,000 hundredweight: the increase in all countries was from 900,000 to 1,570,000 hundred weight.

Rape-seed oil.—The price varied from 106.86 in 1855 to 54.09 marks in 1885. The five-year period price varied from 84.66 marks in 1856-'60 to 61.34 marks in 1881-'85. The price in 1885 was lower by 18.45 marks (25 per cent.) than in 1847-'50, and by 16.15 marks (23 per cent.) than in 1871-'75.

Raw sugar.—The price varied from 72.98 in 1871 to 26.59 in 1885. The five-year period price varied from 59.10 marks in 1856-'60 to 41.96 in 1881-'85. The price in 1885 was lower by 19.07 marks (42 per cent.) than in 1847-'50, and lower by 23.19 marks (51 per cent.) than in 1871-'75. The production of sugar has undergone a remarkable change since 1850, as is indicated by the fact that sugar formerly played an important part among tropical products, whereas it is now reckoned as one of the products of European agriculture. At present, the most important factor for the price of sugar is not the state of the crop in the West Indies, Brazil, and Java, but the extent of the beet culture, and the methods of taxing sugar, in Germany, Austria, and France. Apart from temporary rises in price in 1856, 1857, and 1871, which were mainly the result of speculation, the average price of sugar remained fairly constant until 1883. In 1884 and 1885 a great fall in price set in, which is generally explained as due to an overproduction of sugar. The production of sugar in Germany rose from 1,265,000 double hundred weight in 1860 to 11,230,000 in 1884-'85.

Spirits from Indian corn or potatoes.—The price varied from 70.25 marks in 1855 to 33.23 marks in 1885; the five-year period price varied from 58.11 in 1851-'55 to 39.72 in 1881-'85. The price in 1885 was higher by 1.66 marks (5 per cent.) than in 1847-'50, but lower by 10.17 marks (23 per cent.) than in 1871-'75. The price depends chiefly upon the potato crop, but is also affected more or less by speculation. Considerable improvements in production have led to an increase of the output and a fall in prices. A poor potato crop is offset, as has already been noted, by an increased use of Indian corn.

Beef.—The price varied from 1.25 marks in 1877 to 0.58 marks in 1882; the five-year period price from 1.22 marks in 1876-'80 to 0.65 marks in 1851-'55. The price in 1885 was higher by 0.36 marks (50 per cent.) than in 1847-'50, and lower by 0.07 (6 per cent.) than in 1871-'75. The tendency of the price of meat to rise began to appear about 1865, but has not continued since 1880. The price of veal and of mutton show, on the whole, a similar movement. Pork, on the other hand, has not risen so much, which is to be ascribed to the competition of the pork imported from North America.

For tallow and lard the prices of 1885 are lower by 12.33 marks (15 per cent.) and 25.17 marks (27 per cent.), respectively, than in 1847-'50.

Leather.—The price varied from 485.13 marks in 1866 to 260.74 marks in 1878; and the five-year period price varied from 410.34 in 1861-'65 to 289.42 marks in 1876-'80. The price in 1885 was higher by 66.88 marks (25 per cent.) than in 1847-'50, and was lower by 12.18 marks (4 per cent.) than in 1871-'75.

Bristles and ox-horns show a considerable rise in price in recent years. As compared with the period 1847-'50 the prices of these articles in 1885 show a rise of 394.53 marks (111 per cent.) and 44.78 marks (110 per cent.), respectively. Compared with the

period 1871-'75, the rise in price is 33.49 marks (5 per cent.) and 10.14 (13 per cent.), respectively.

Herrings.—The price varied from 37.48 marks per ton in 1879 to 18.60 marks in 1851; the five-year period price varied from 34.37 marks in 1876-'80 to 24.13 marks in 1851-'55. The price in 1855 was higher by 9.04 marks (45 per cent.) than in 1847-'50, and it was lower by 1.46 marks (5 per cent.) than in 1871-'75. The great fluctuations in price are the natural results of variations in the catch.

The price of *courants* shows a great rise in some years, as, for instance, in 1856 and 1857, in consequence of the failure of the crop in Greece.

French wine.—The price varied from 97.67 marks per hectoliter in 1880 to 27.83 marks in 1851. The five-year period price varied from 78.40 marks in 1881-'85 to 27.60 marks in 1847-'50. The price in 1885 was higher by 42.81 marks (155 per cent.) than in 1847-'50, and was higher by 9.15 marks (15 per cent.) than in 1871-'75. The cause of the steady rise in the price of Bordeaux wine (the grade chiefly entering into the trade of Hamburg) is to be found in the ravages of the phylloxera in the vineyards of the Gironde.

Coffee.—The price varied from 186.08 marks in 1874 to 82.20 marks in 1851 and 1852; the five-year period price from 160.42 marks in 1871-'75 to 88.80 marks in 1851-'55. The price in 1885 was higher by 17.04 marks (23 per cent.) than in 1847-'50, and lower by 69.22 marks (43 per cent.) than in 1871-'75. The coffee crop in Brazil, Java, etc., of course affects the price of coffee, but the great rise in price between 1873 and 1877 is to be ascribed chiefly to speculation.

Cocoa.—The price varied from 197.42 marks in 1879 to 58.02 marks in 1851; the five-year period price from 151.50 marks in 1876-'80 to 69.96 marks in 1851-'55. The price in 1885 was higher by 95.28 marks (147 per cent.) than in 1847-'50, and higher by 58.42 marks (57 per cent.) than in 1871-'75. Speculation has much to do with the extraordinary fluctuations in the price of this article.

Tea.—The price of tea shows slight fluctuations in comparison with those of coffee and cocoa. In the last decade, 1875-'85, the prices were lower than before.

Rice.—The price varied from 32.58 marks in 1855 to 17.37 marks in 1885; the five-year period price from 28.74 marks in 1851-'55 to 18.53 marks in 1881-'85. The price in 1885 was lower by 16.29 marks (48 per cent.) than in 1847-'50, and is lower by 4.21 marks (20 per cent.) than in 1871-'75. The Suez Canal, by shortening the sea voyage, has contributed to the cheapening of this article.

Indigo, cane (for chairs), and *ivory* are considerably higher in price in 1881-'85 than they were in 1847-'50, the changes in price being 48, 76, and 94 per cent. respectively. This rise in price had already taken place in 1871-'75. The price of cochineal, on the other hand, has fallen greatly, and was lower in 1881-'85 than in 1847-'60 by 63 per cent. The cause of this decline is to be found in the progress of chemistry, which has brought out cheap substitutes for cochineal.

The prices of mineral products, with few exceptions, show a remarkable decline in recent years. The cause is to be found in the cheapening and extension of production, in the keen competition of the producers of different countries, and in the fact that demand fails to keep pace with the supply. We present the variations in these prices in tabular form.

Articles.	The yearly prices, in marks, varied between—		The prices, in marks, for five-year periods, varied between—	
Coal.....per 1,000 kilos..	12.31 (1885) and	27.46 (1873)	12.56 (1881-'85) and	20.65 (1871-'75)
Pig-iron.....per 100 kilos..	5.14 (1885)	14.86 (1873)	5.80 (1881-'85)	10.52 (1871-'75)
Bar-iron.....do.....	14.26 (1885)	34.24 (1873)	15.87 (1881-'85)	25.86 (1871-'75)
Steel.....do.....	34.41 (1885)	77.64 (1855)	38.08 (1881-'85)	62.58 (1856-'60)
Lead.....do.....	25.08 (1884)	63.08 (1873)	23.25 (1881-'85)	50.28 (1871-'75)
Copper.....do.....	110.92 (1885)	240.24 (1856)	130.05 (1881-'85)	214.44 (1856-'60)
Quicksilver.....do.....	354.63 (1883)	1,303.50 (1874)	384.27 (1881-'85)	852.06 (1871-'75)
Salt.....do.....	1.74 (1867)	4.08 (1857)	1.98 (1866-'70)	3.84 (1856-'60)
	(1885)			

Articles.	The price in marks of 1885 compared with that of 1847-'50.	The price in marks of 1885 compared with that of 1871-'75.
Coal.....per 1,000 kilos..	+ 3.42 (22 per cent.)	+ 8.34 (60 per cent.)
Pig-iron.....per 100 kilos..	+ 2.80 (51 per cent.)	+ 5.38 (51 per cent.)
Bar-iron.....do.....	+ 5.54 (28 per cent.)	+ 11.60 (45 per cent.)
Steel.....do.....	+ 19.41 (26 per cent.)	+ 13.89 (25 per cent.)
Lead.....do.....	+ 10.59 (29 per cent.)	+ 24.99 (49 per cent.)
Copper.....do.....	+ 61.04 (28 per cent.)	+ 63.68 (38 per cent.)
Quicksilver.....do.....	+461.09 (55 per cent.)	+478.37 (54 per cent.)
Salt.....do.....	+ 2.76 (61 per cent.)	+ 1.42 (45 per cent.)

The considerable fall in the price of quicksilver, since the discovery of the California mines, is of especial importance in the silver question, since it contributes to the cheaper separation of gold from silver. The remarkable rise in price between 1872 and 1876 was brought about by speculation.

Cotton.—The price varied from 436.02 marks in 1864 to 90.60 in 1854; the five-year period price varied from 281.88 marks in 1861-'65 to 99.66 marks in 1851-'55. The price in 1885 was lower by 8.94 marks (8 per cent.) than in 1847-'50, and lower by 47.16 marks (32 per cent.) than in 1871-'75. The enormous rise in price between 1862-'66 was of course caused by the civil war in America. A still greater rise in price would have taken place but for the extension of cotton-raising in East India.

Wool.—The price varied from 432.30 marks in 1860 to 200.72 in 1864; the five-year period price from 417.24 marks in 1856-'60, to 239.55 marks in 1881-'85. The price in 1885 was lower by 157.76 (44 per cent.) than in 1847-'50, and was lower by 131.76 marks (39 per cent.) than in 1871-'75. The chief cause of the lower price of wool is to be found in the extraordinary development of wool-growing in Cape Colony, Australia, the Argentine Republic, and elsewhere.

Silk.—Fluctuations in the price of silk are caused chiefly by the varying yield of silk in China and Upper Italy. The poor product in 1867-'69, and again in 1872-'73, caused a considerable rise in price, which makes the steady fall since 1878 more striking. The price in 1885 was lower by 9.61 marks per kilogram (25 per cent.) than in 1847-'50, and was lower by 14.33 marks (33 per cent.) than in 1871-'75.

The price per kilogram of Milan organzine (22-26) was, in francs, gold, cash, as follows during the last twenty years. We take the figures from a communication received from Elberfeld.

Years.	Highest.	Lowest.	Average.	Years.	Highest.	Lowest.	Average.
1866.....	114	98	106	1876.....	120½	62	91½
1867.....	118	112	115	1877.....	102	71	86½
1868.....	140	114	127	1878.....	85	69	77
1869.....	127	101	114	1879.....	89	65	77
1870.....	121	88	104½	1880.....	81	66	72½
1871.....	100	83	91½	1881.....	65	62	63½
1872.....	113	99	106	1882.....	66	61	63½
1873.....	107	92	99½	1883.....	61	55	58
1874.....	92	70	81	1884.....	60	55	57½
1875.....	75	66	70½	1885.....	56	47	51

Of 114 articles mentioned in these tables, 51 have risen in price by more than 5 per cent. in 1885 as compared with 1847-'50, 55 have fallen in price by more than 5 per cent., while in the remaining 8 no essential change had taken place. In comparison with the average prices of the period 1871-'75, the year 1885 shows a rise of more than 5 per cent. in case of but 10 articles. In case of 90 articles a fall of more than 5 per cent. has taken place, while 14 articles show no essential change.

Lack of space prevents further remarks on these tables. These notes have been given chiefly to show that wholesale prices are subject to frequent and great changes; that many different factors influence their course, and that it is exceedingly difficult to get any certain conclusion as to the real level of general wholesale prices at one period compared to another period.

If, nevertheless, we were to state in summary form the results of our investigations on the changes in the purchasing power of gold, we should say that the cost of living, compared with the time immediately preceding the great influx of new gold had become higher, for the great majority of the population of Germany, by 60 or 80 per cent. in the last thirty years. Since the period 1871-'75 a further rise can not, on the whole, be observed. The general level of wholesale prices in the last five years is higher by about 18 per cent. than in the period before 1851, but is lower by about 12 per cent. than in the period 1871-'75. But these statements can be taken and should be taken only as approximate estimates, to be accepted with every qualification.

APPENDIX.

EXTRACTS FROM EXISTING MINT LAWS AND MINT TREATIES, WITH SPECIAL REFERENCE TO THE QUESTION OF STAND- ARDS.

United Kingdom, British Possessions, and British India.—The act of April 4, 1870 (An act to consolidate and amend the law relating to the coinage and Her Majesty's mint, 33 Victoria, chapter 10), makes the following provisions:

As fixed by the act 56 George III, chapter 68 (of June 22, 1816), 20 pounds Troy of gold, $\frac{1}{12}$ fine, are to be coined into 934½ sovereigns, while 1 pound Troy of silver, $\frac{3}{8}$ fine, is to be coined into 66 shillings of silver.

The sovereign has therefore by law a weight of 123.27448 grains Troy (7.98806 grams metric weight), and contains 7.3224 grams fine gold. The shilling has by law a weight of 87.27273 grains Troy (5.65518 grams) and contains 5.2301 grams of fine silver. The other gold and silver coins are coined in the same proportions.

The tolerance for gold coins is 0.002, and for silver coins is 0.004. The legal-tender weight is, for the sovereign, 122.5 grains (7.93787 grams), for the half sovereign, 61.125 grains (3.96083 grams). No legal-tender weight is fixed for silver coins.

Sovereigns and half sovereigns are legal tender to any amount. Coins under legal-tender weight can be refused. All such coins handed into the Bank of England are cut in two by the bank, and accepted by it only for their weight of standard gold. The loss on light coins is borne by the public.

Any person may carry gold to the mint and have it coined at the rate of £3 17s. 10½d. per ounce Troy, standard fine. No seigniorage is charged. If gold of greater or less fineness than the standard is brought to the mint, it is there converted into standard gold, at the expense of the owner.

For a long time there has been in the United Kingdom but one mint—that at London.

The Bank of England is obliged to accept all gold brought to it and to pay for it at once at the rate of £3 17s. 9d. per standard ounce. The difference of 1½d. compensates the bank for its trouble and for the loss of interest between the day when gold is brought to the mint and the day when it is returned as coin. The consequence of this provision is that the Bank of England almost exclusively carries gold to the mint.

Silver is coined only on Government account, and is legal tender only up to £2. In the United Kingdom, therefore, the pure gold standard exists.

From time to time considerable amounts of worn silver coins are withdrawn on the Government account and are recoined. There is no specific legal regulation of such action.

At the old, so-called normal, ratio of silver to gold of 1:15½ (the price of silver being 60½*d.* per standard ounce) the intrinsic value of the silver was less than their nominal value by 7.82 per cent.

At a ratio of 1:21 (the price of silver being 44½*d.* per standard ounce) the intrinsic value is less than the nominal value by 31.96 per cent.

The notes of the Bank of England are legal tender for all payments, except payments by the bank itself.

The Bank of England and the other banks of issue in England are not allowed to issue notes in denominations of less than £5. This restriction does not apply to banks of issue in Scotland and Ireland, which are permitted to issue £1 notes.

In all the colonies of Australasia the coinage system of the mother country and the pure gold standard obtain. Branches of the London mint have been established at Sydney and at Melbourne, which, however, as yet coin only gold. Their coins are legal tender in the United Kingdom and in all British colonies.

In the Dominion of Canada the gold standard exists. The sovereign is a legal tender for \$4.86½, and an eagle of the United States is legal tender for \$10. Silver coin is legal tender only up to \$10.

Cape Colony and Natal followed the British coinage system.

In Hong-Kong and the Straits Settlements Mexican piasters are the chief medium of exchange and the silver standard exists. The silver standard exists in Mauritius and Ceylon, the Indian rupee being legal tender.

In British India the silver rupee has been the standard of value since 1835. The rupee weighs 180 grains Troy; it contains 165 grains fine silver and 15 grains alloy. The smaller coins (one-half, one-fourth, one-eighth rupees) are coined in the same proportion. The tolerance for the rupees and half rupees is one-half per cent. in weight and one-half per cent. in fineness.

Rupees and half-rupees are legal tender up to any amount so long as they have not lost more than 2 per cent. in weight. One-fourth and one-eighth rupees are legal tender only up to one-rupee.

Gold mohurs, of the same weight and fineness as the rupees, are coined on demand in pieces of 15 rupees; but neither these mohurs nor other gold coins are legal tender.

There are mints at Calcutta and at Bombay to which every one may bring gold and silver of standard fineness for coinage. There is a seignorage of 1 per cent. for gold and 2 per cent. for silver, and a charge of one-half per cent. and 1 per cent., respectively, for remelting into standard coin. A proclamation by the Indian Government of 1868, announcing that sovereigns would be accepted at public offices for 10 rupees 4 annas, has no result, since gold coins fetch a higher price at the bazars.

The United States.—In the United States the double standard existed by law until 1873; though at times inconvertible paper money drove both gold and silver from circulation. The ratio at which gold and silver were coined varied at different periods, so that the actual standard of value alternated. The original monetary unit was the Spanish piaster, supposed to contain 375.64 grains of fine silver. The act of April 2, 1792, which established the mint, provided as follows:

Gold dollars were to contain 24.75 grains fine Troy, and silver dollars to contain 371.25 grains fine Troy. The ratio was, therefore, 1:15. Smaller silver pieces were to be coined in the same proportion as the silver dollars.

The weight of fine gold in the gold coins was reduced by an act of July 31, 1834, to 23.20 grains Troy, and soon afterwards was changed

by an act of July 18, 1837, to 23.22 grains Troy, the standard being changed at the same time from $\frac{1}{4}$ to $\frac{1}{6}$. The weight of fine silver in the silver dollar up to the present has remained unchanged. The ratio has therefore been, since 1837, 1 : 16 (accurately, 1 : 15.988).

After the year 1851 the price of silver was at times so high that it became profitable to melt silver coins. It was necessary to retain within the country a sufficient amount of small coin, and an act of February 24, 1853, reduced the amount of silver in small coins, and provided that they should be coined only on Government account. At the same time they were made legal tender only up to the sum of \$5.

In 1870 the Government concluded to pass a revised coinage law with a pure gold standard; silver being demonetized as a legal-tender money. The bill prepared for this purpose was subjected both by Congress and by experts to repeated and careful examination. During three sessions no final decision was reached on it. It did not become law until April 12, 1873, and no opposition was expressed either in the House of Representatives or in the Senate to the abolition of the double standard which was clearly expressed in it. The silver dollars previously coined (of which, however, but few were in existence) maintained their quality as legal tender; but new dollars were not to be coined either on Government or on private account.

The formal complete demonetization of silver as legal-tender money took place still further by section 3586 of the Revised Statutes of 1874, which provided that the silver coins of the United States were to be legal tender only up to the sum of \$5.

The new coinage law went into effect on the 1st of December, 1873; but the pure gold standard which it provided for was at first of no practical importance, and attracted no attention. No noteworthy depreciation of silver had as yet taken place, customs duties and interest on the national debt were paid almost exclusively in gold coin, and in general trade paper money was used unless contracts stipulated for coin. But when, in 1875, the resumption of specie payments became probable, and the production of silver in Nevada had greatly increased, a vigorous agitation began for the re-establishment of the double standard, and for a large coinage of silver. A joint resolution of the Senate and the House of Representatives established a commission for investigating the double standard, and a majority of the commission recommended its re-establishment.

Representative Bland accordingly proposed in Congress the establishment of the double standard at the old ratio of 1 : 15.988, with free coinage of silver. This proposition could not be carried, as the bill, in order to be passed over the veto of the President, needed a majority of two-thirds. Such a majority could be obtained only by substituting for free coinage a proviso by which the Secretary of the Treasury is authorized and required to buy silver from time to time, not less than two and not more than four million dollars' worth per month, and to coin it at once into silver dollars.

This act of February 28, 1878, generally known as the "Bland bill" or "Allison bill," put an end to the gold standard which had been established five years before, and made the silver dollars, coined at the old rate, legal tender for all public and private debts, unless other stipulation was expressly made by contract.

The act also authorized the President to invite the Governments of those countries which constitute the Latin Union, and of such other countries as he saw fit, to a conference at which a common ratio between gold and silver was to be reached by international agreement,

and a permanent ratio between the two metals assured. This was the occasion, as is well known, of the International Monetary Conference at Paris, which lasted from the 10th to the 29th of August, 1878. As is also well known, the conference did not accept the proposals of the American delegates. It achieved nothing positive, nor did the later monetary conferences, also held at Paris in 1881, from April 8 to May 19, and from June 30 to July 8. On January 1, 1879, specie payments were resumed in the United States. The premium on gold had disappeared several months before. No use was made of the privilege of redeeming legal-tender notes in coin at the Treasury.

The act of February 28, 1878, has remained in force up to the present time (September, 1886), although attempts have not been wanting to bring about its repeal or amendment. On the one hand, Presidents, Secretaries of the Treasury, and members of Congress, have repeatedly recommended that the coinage of silver dollars be stopped; on the other hand, members of Congress have proposed as repeatedly free coinage of silver dollars.

A remarkable preference for well-secured paper money has developed in the United States. The Comptroller of the Currency has called attention to this in one of his earlier reports: "The population throughout the country want paper money, and the banks find it difficult to satisfy this demand. They find a similar difficulty in inducing their customers to accept coin. * * * It was supposed that after seventeen years of paper money the public, which had hardly seen a gold piece during that time, would welcome eagerly the returning yellow metal; but a deep-rooted habit proved stronger than the liking for gold, and the redeemable paper is preferred."

This explains the great variety of paper money which exists in the United States. Besides legal-tender notes and bank-notes, various kinds of certificates circulate.

Gold certificates were first introduced by an act of March 3, 1863, which authorized the Treasury to issue certificates for deposits of gold coin or bars. These certificates, intended primarily for clearing-house use, were also to be received in all public payments. When, on December 1, 1878, the issue of gold certificates ceased, the banks of New York found it necessary to establish a depository of their own, which issues since October 14, 1879, certificates for gold deposits. An act of July 12, 1882, again authorizes the issue of gold certificates by the Treasury on deposits of gold coin in sums of not less than \$20.

Silver certificates were introduced by the Bland bill of February 28, 1878. It authorizes every holder of legal-tender silver dollars to carry them to the Treasury in sums of not less than \$10, and to receive in exchange silver certificates in the denominations of United States notes. The silver dollars remain in the Treasury for the redemption of the certificates, which are receivable in payment of customs and of all public dues.

Since 1873 the Treasury issues certificates of deposits for legal-tender notes. The Treasury also issues certificates of deposits of subsidiary coin, which are accepted for their face value in public payments. This is a natural corollary to the provision that subsidiary coins are redeemable at the Treasury in legal-tender coins.

When, in 1861, greenbacks were made a legal tender in the United States, the banks associated in the New York clearing-house agreed that clearings should be made exclusively in gold. This rule has been maintained since the resumption of specie payments on January 1, 1879, and has been applied more particularly in regard to silver. An act of

Congress of July 12, 1882, in regard to the renewal of the charters of the national banks, aimed to put an end to the exclusion of silver dollars and silver certificates by providing that no national bank should be a member of a clearing-house at which gold and silver certificates were not accepted in payment of balances. The clearing-houses have, therefore, been compelled formally to abolish their rule, but in practice gold continues to be used in all clearing-house transactions.

In the same way the Secretaries of the Treasury of the United States have hitherto been careful in practice to pay the interest and principal of the national debt in gold, although their obligation to do so is not positive. Moreover, the Treasury holds a reserve of \$100,000,000 of gold for the redemption of the greenbacks, whose maximum since 1879 has been \$346,681,016.

Germany.—Before the coinage reform brought about by the acts of December 4, 1871, and July 9, 1873, there existed in Germany (apart from Alsace and Lorraine) seven different coinage systems. The gold standard existed in Bremen; elsewhere the silver standard prevailed. The chief provisions of the acts mentioned and of some later supplementary acts are as follows:

The imperial coins take the place of the local coins previously in use; the monetary unit is the mark. The mark is one-tenth of a gold coin called a crown, of which there are struck from a pound (the German pfund) of fine gold 139½ pieces. In addition to the crown of 10 marks, imperial gold coins of 20 marks (double crowns) and imperial gold crowns of 5 marks (half crowns) are struck. The coinage of the last-mentioned pieces has, however, ceased for several years. The imperial gold coins are to contain 900 parts gold and 100 parts copper; therefore 125.55 10-mark pieces, or 62.775 20-mark pieces, weigh 1 pound.

The variation of the pieces from the standard shall not exceed in weight 2½ parts in a thousand, nor in fineness 2 parts in a thousand. Imperial gold coins whose weight is not under the normal weight by more than 5 parts in a thousand, and which have not been diminished in weight by violent or illegal damage, are legal tender in all payments. Imperial gold coins which are not up to this weight, and have been accepted in payment by the Empire, states, provinces, or communes, or by banks or other credit institutions, are not to be reissued. If gold coins have lost by abrasion in consequence of long circulation so much in weight that they are no longer legal tender, they are to be withdrawn and recoined on account of the Empire. Such coins are also to be accepted by the Empire and by the federal states at their nominal value.

Every one is entitled to have gold coined into 20-mark pieces at a charge of 3 marks per pound of fine gold.

The Imperial Bank must pay gold in bars, in redemption of its notes, at the fixed rate 1,392 marks for the pound of gold.

Silver pieces are coined as follows: 5-mark pieces, 2-mark pieces, 1-mark pieces, 50-pfennig pieces, and 20-pfennig pieces. The pound of fine silver is coined into 100 marks. The coins contain 900 parts of silver and 100 parts copper, so that 90 marks in silver coins weigh 1 pound. Silver pieces must not vary in fineness more than 3 parts in a thousand from the standard, and must not vary in weight (except in the case of the 20-pfennig pieces) more than 10 parts in a thousand.

The total amount of imperial silver coins shall not exceed, until further provision is made, 10 marks per head of population.

No individual need accept more than 20 marks of imperial silver coins in payments. They are accepted in any amount by the Empire and by the federal states. The Bundesrat is to designate certain offices which

are to redeem imperial gold and silver coins in sums of not less than 200 marks.

Imperial silver coins which have lost in weight, or whose marks have been rubbed off by long circulation, are accepted in payments to the Empire and the federal states, but are to be withdrawn on account of the Empire.

All older German coins are no longer legal tender, and have been withdrawn, with the sole exception of the thaler pieces. Whatever pieces of this kind still exist are legal tender to any amount, like the imperial gold coins, each piece being equal to 3 marks. An act of April 20, 1874, provides that *Vereins-thaler*, coined in Austria before 1867, shall also be full legal tender. Since May, 1879, the sales of silver by the German Government have ceased, and with them the withdrawal of thaler pieces has ceased. The Chancellor of the Empire is authorized to renew the sales at any time.

An act of January 6, 1867, has authorized the Bundesrat to put the thaler pieces, and the Austrian thalers already referred to, on the same footing as imperial silver coins, that is to say, to make them legal tender only up to 20 marks, the thaler being still reckoned at 3 marks. The Bundesrat is to proclaim such a change in the *Reichsgesetzblatt*, and it is to take effect at the earliest a month after publication. Since the suspension of silver sales and of the withdrawal of silver thalers, in May, 1879, there is no likelihood that the Bundesrat will make use of the authority so conferred on it. The act of January 6, 1876, is, however, of importance, since it makes certain the power of the Bundesrat to demonetize the thaler pieces—a power which had been doubtful under the language of Article VIII of the coinage act of 9th July, 1873.

Denmark, Sweden, and Norway.—The coinage system of the three Scandinavian countries is based on the treaty concluded between them on December 18, 1872, and on the acts which they have passed in accordance with this treaty.

The pure gold standard replaces the former pure silver standard. On the old system, the Swedish thaler contained 6.3763 grams of fine silver, the Danish half-thaler contained 6.3205 grams fine silver, the Norway quarter-thaler contained 6.342 grams of fine silver. The new gold unit (the crown divided into 100 öre) contains 0.403226 grams of fine gold. Consequently the ratios for conversion into the new coinage have been, respectively, 1:15.57, 1:15.43, and 1:15.44.

The gold coins are 0.900 fine; the alloy is copper.

Gold pieces of 20 crowns and of 10 crowns are struck, there being 124 of the former and 248 of the latter to the kilogram of gold fine. The 20-crown piece weighs, therefore, 8.96057 grams and the 10-crown piece 4.48029 grams; their weight in fine gold is therefore 8.06452 and 4.03226 grams, respectively. In Sweden pieces of 5 crowns, of a corresponding weight, have also been coined.

The tolerance for the gold coins is, in fineness, $1\frac{1}{2}$ parts in a thousand; and in weight, $1\frac{1}{2}$ parts in a thousand, for 20-crown pieces; 2 parts in a thousand for 10-crown pieces. For large quantities, weighing 10 kilograms, the remedy for both coins is 5 grams.

The gold coins cease to be legal tender in private transactions when they have lost more than $1\frac{1}{2}$ per cent. of their weight. But so long as they have not lost 2 per cent. of their weight they are received in public payments. In Denmark and in Norway the state is obliged to exchange all gold coins which have its impress, and which have lost more than one-half per cent. by abrasion, for full-weight gold coins. The Bank of Norway weighs every coin it receives, and turns over to the state every piece which has lost one-half per cent. of the legal weight.

Every person who brings to the mint gold of the prescribed quality is entitled to have it coined into 20-crown pieces, on paying a charge of one-fourth per cent., and into 10-crown pieces on paying a charge of one-third per cent. In Norway, the Bank of Norway is obliged to buy gold bars at the fixed rate of 2473.80 crowns per kilogram fine, and gold is consequently coined only for the bank.

Silver is subsidiary coin, struck only on Government account. Pieces are coined as follows :

Coins.	Weight.	Fineness in 1,000.	Weight of fine silver.
	<i>Grams.</i>		<i>Grams.</i>
2 crowns	15	800	12
1 crown	7.5	800	6
50 öre	5	600	3
40 öre	4	600	2.4
25 öre	2.42	600	1.452
10 öre	1.45	331	0.480

The ratio between gold and silver is accordingly 1 : 14.88.

Pieces of 1 and 2 crowns are legal tender only up to 20 crowns, other silver coins only up to 5 crowns.

The remedy for all silver coins is in fineness 3 parts in a thousand. In weight the remedy is 3 parts and 5 parts in a thousand, for double crowns and crowns respectively. For the smaller silver coins, in quantities of a kilogram, it is 6.10 and 15 parts in a thousand.

In all three countries specified public offices will redeem subsidiary coins in gold, in sums of 10 crowns or multiples thereof.

The coins of each country, struck in accordance with the treaty, are legal tender in all three countries. The treaty has set no limit to the coinage of subsidiary coins.

The tables printed in Part VI of our Materials show how very slight is the circulation of actual gold in the Scandinavian countries, and in how high a degree the circulating medium, so far as it does not consist of silver, consists of bank notes. For more than sixty years the population of the three Scandinavian countries has been accustomed to bank notes as a convenient and secure circulating medium, and notes are preferred to gold coins as they were formerly preferred to the heavy silver coins. Exceedingly few coins appear in ordinary transactions.

The Netherlands.—The double standard was abolished in the Netherlands by the coinage law of November 26, 1847, and in its place a single silver standard was adopted. The unit was the florin (guilder) containing 10 grams of silver, of a fineness of 0.945. By acts of June 6, 1875, and May 10, 1876, the single gold standard has been introduced, by which the unit has made and still remains one-tenth part of a gold coin of 10 florins, containing 6.720 grams of gold of a fineness 0.900—that is, containing 6.048 grams of fine gold. The earlier Wilhelm d'or had contained 6.0561 grams of fine gold. The remedy is for the 10-florin pieces, in fineness $1\frac{1}{2}$ parts in a thousand, in weight 2 parts in a thousand. Up to the present no gold coins except 10-florin pieces have been struck. Private persons are entitled to have 10-florin pieces struck at the mint, in so far as the mint is not busy on state account. The mint charge is determined by the administration from time to time, but may not be set higher than 5 florins per kilogram of mint gold. As a rule, the Bank of the Netherlands, which is ready to buy gold at prices fixed at its discretion, causes gold to be coined.

The coinage of larger silver pieces is discontinued. Subsidiary silver coins in denominations of 25 cents or less are coined on Government account.

The silver coins of $2\frac{1}{2}$, 1, and $\frac{1}{2}$ florins remain for the present full legal tender, side by side with new gold coins. These old silver pieces, as stated above, contained 9.45 grams of fine silver to the florin. The change to a gold standard, therefore, took place on an assumed ratio of 1:15.625. The silver coins still exist in large quantity, and are the most important medium of exchange in domestic transactions, although their intrinsic value is 30 per cent. less than their nominal value. In foreign trade gold exclusively is used, as the Bank of the Netherlands is prepared to pay on demand gold for this purpose.

In the colonies of the Netherlands the coinage system of the mother country obtains in the main, there being a difference only in regard to the small subsidiary coins.

In *France, Italy, Belgium, and Switzerland* a uniform coinage prevails. These countries (with Greece, in which, however, an inconvertible paper money is for the present in use) form the so-called Latin Union. This union was originally formed by a treaty concluded at Paris, December 23, 1865, and has been continued by later treaties to the close of 1885. By a treaty of November 6, 1885, and by a supplementary treaty of December 12, 1885, the continuance of the Latin Union was agreed on, after long and heated discussion, till January, 1891.

The coinage system, which follows that of the French coinage act of March 28, 1803, is as follows:

Coins, francs.	Fine metal.		Weight.	
	Fineness.	Tolerance.	True weight.	Tolerance.
Gold.....	900	2	6.45161	2
.....			3.22580	
.....			1.61290	
.....	900	2	25	3
.....			10	
.....			5	
Silver.....	835	3	2.5	7
.....			1	
.....			10	

The 20-franc piece, therefore, contains 5.8065 grams of fine gold, the silver 5-franc piece 22.5 grams of fine silver; the franc-piece 4.175 grams of fine silver. The coinage ratio is, therefore, for the 5-franc pieces 1:15.5, for the smaller silver coin 1:14.3806.

Each contracting state agrees to receive the coins of the other states in payments to itself, with the proviso, however, that no coins are to be received that have lost one-half per cent. or more of their legal weight.

The further coinage of silver 5-franc pieces has been stopped for the present, and can only be resumed by the unanimous agreement of all the contracting countries. But the power to resume their coinage without such unanimous agreement is reserved, on the fulfillment of certain specific conditions.

The contracting Governments agree to accept each others' 5-franc pieces in public payments.

Each contracting country agrees to accept from the other contracting countries those 5-franc pieces whose weight is less by 1 per cent. than the minimum permitted to be coined. In France the 5-franc pieces

are accepted on Government account by all branches of the Bank of France.

Subsidiary silver coins are to be melted and recoinied by the Government issuing them, as soon as their weight has lost 5 per cent. by abrasion or the coinage marks have been worn off. Subsidiary coins are legal tender up to 50 francs for individuals of the country issuing them. Each state will accept from its subjects without limit subsidiary coins of its own issue. Each of the contracting states will receive subsidiary coins, struck by one or more of the other contracting states, in sums of 100 francs at any one payment. Each of the contracting countries agrees to redeem in gold coins, or in silver 5-franc pieces, subsidiary coins issued by it, and presented for redemption by its own subjects or by another contracting country; but no sum under 100 francs is to be redeemed.

Subsidiary coins can be issued by the contracting countries only to the amount of 6 francs per head of population. This sum can be exceeded under certain specific conditions, but the excessive issues have been comparatively small.

The conventions of November 6, 1885, and of December 12, 1885, contain a number of specific provisions as to the manner in which the redemption of silver 5-franc pieces is to take place, in case the union should be dissolved.

THE PRICES OF COMMODITIES IN 1886 COMPARED WITH THE PRICES OF PREVIOUS YEARS.

[The translator adds to Dr. Soetbeer's *Materials* a translation of two articles published by him in the *Hamburg Börsen-Halle*, Nos. 181 and 182, in which he continues his investigations of general prices for the year 1886.]

I.

In the course of 1886 the opinion has been frequently expressed, and has been maintained in commercial papers, that the fall in prices which had continued steadily till 1886, had at last come to an end, and that there were signs of a turn in the tide, toward rising prices. But in other quarters it has been said—and here, particular commodities were cited, as they were in support of the first-mentioned view—that the fall in prices had continued in the year 1886, even though not in so great a degree as in previous years. Which view is correct? In any case, no considerable change in the general level of prices is likely to have taken place in 1886 as compared with former years, since such a difference of opinion exists. But even if the change that may have taken place is a slight one, the continued discussion of the silver question causes much interest to attach to a careful and impartial investigation of the actual range of prices in 1886.

For the solution of this problem we may turn first of all to those statistics of prices which are now admitted on all hands to be the most complete and trustworthy. These are the statistics of the Hamburg Bureau of Trade Statistics, which have been prepared carefully on a consistent method since 1847, and have latterly been presented in complete form in the second edition of the well-known "*Materials towards the Elucidation of the Economic Conditions affecting the Precious Metals.*" A well-deserved confidence in the results of these publications from 1847 to 1855 has been generally expressed, and a similar confidence will be accorded to the corresponding results of the lately published "*Tabular Statements of the Trade of Hamburg in 1886.*" It must always be remembered, of course, that these results like others, while deserving attention, are yet not a conclusive indication of the general level of prices. But, before presenting the average prices of 1886, as indicated by the Hamburg statistics, we wish to present a few remarks and statements based on the recently published statistics of the trade of the German Customs Union with foreign countries in the year 1886, published by the Imperial Statistical Bureau.

Ever since careful statistics of foreign trade were undertaken, the Imperial Statistical Bureau has endeavored to ascertain each year the prices of the individual commodities, and thereby to secure statistics of values. Estimates for this purpose are prepared by the collection and

comparison of statements of prices. These statements are derived from several sources—from the statistics of prices which the Hamburg Bureau of Trade Statistics obtains from the prices current of that place, and which give the average prices of almost every commodity dealt in; from the regular monthly memoranda of prices sent in by several chambers of commerce for important articles of trade; and from communications from a large number of commercial bodies in regard to the average annual prices of commodities in their districts.

It is impossible to obtain separate prices for all commodities for which the prices differ appreciably; still less is it possible to obtain separate prices for each quality and grade of the same commodity. The more important articles of foreign trade must be lumped together under certain heads, in which different grades and qualities are included; and it has been necessary sometimes to put essentially different commodities under the same head. Estimates of this kind are necessary for statistical purposes, yielding, as they do, an average price for a certain number of commodities. Moreover, it is necessary to present the general conditions of the trade of the whole territory, and especially to show what parts are played in imports and exports by the different classes and qualities of commodities. The average prices of each head are estimated from the prices—easily ascertainable from men of business—of the different articles grouped under that head. It is of course impossible to get actual average prices for all classes, especially for such as include commodities of varying quality. But some estimate of their value is necessary in order to obtain a statement of the total value of exports and imports. However, these estimated values contribute little to the total, as compared with the classes for which sufficiently exact prices can be ascertained. With few exceptions, prices are reckoned at so much per hundred kilograms net weight, and refer to the calendar year. We must first learn something of the fluctuations in price during the year of each article or class, and then an average yearly price can be secured. The prices of imported and of exported articles are estimated separately. The price of imported articles is taken to be the sum which is paid by the home country to the foreign country; the price of exported articles is taken to be the sum paid by the foreign country to the home country. Duties are not reckoned as part of the prices of imported articles, nor are drawbacks considered in reckoning the prices of exported articles.

The Bureau of Statistics each year summons experts to aid it in preparing prices. The experts are divided into six sections, based on a systematic classification of the commodities. For the year 1886 thirty-eight gentlemen, of whom the majority had taken part in previous years, were employed in estimating the prices.

These average prices, in which there were at the outset many mistakes, have become more accurate and trustworthy from year to year. They have been compiled in essentials on the same method, and therefore comparisons can be readily made.

We now present a general comparison of the average prices for the years 1885 and 1886 of a certain number of important articles. We pay attention to but few of those for which no change in price is indicated between 1885 and 1886. We arrange the articles on the plan followed in the tables of the Materials.

Article.	Imported or exported.	Quantity.	Prices in—	
			1885.	1886.
			<i>Marks.</i>	<i>Marks.</i>
Wheat	Imported	100 kilograms	13. 50	14. 80
Rye	do	do	11	9. 70
Barley	do	do	12. 80	12. 90
Hops	do	do	280	300
Linseed oil in barrels	do	do	45	40
Sugar, raw	Exported	do	28	22. 91
Spirits	do	do	31	29. 50
Horses	Imported	Piece	860	950
Cows	do	do	400	375
Pigs	do	do	96	95
Butter	do	100 kilograms	150	159
Lard	Exported	do	71	66
Cattle hides	do	do	180	170
Salt herring	do	do	29	28. 50
Raisins	do	do	45	40
Wine in casks	do	do	55	55
Coffee	do	do	95	112
Cocoa	do	do	152	100
Rice	do	do	19	18. 50
Tobacco leaves	do	do	160	150
Coal	do	do .....	. 80	. 92
Pig iron	Imported	do	4. 40	4. 30
Iron tools	Exported	do	100	90
Lead	do	do	21. 50	25
Zinc	do	do	23. 50	23. 50
Tin	Imported	do	180	197. 50
Copper	do	do	95	85
Coal oil	do	do	14. 50	13
Chili saltpeter	do	do	20	18
Cotton	do	do	109	99
Cotton yarn, Nos. 17-45	do	do	180	173
Cotton cloth	Exported	do	875	870
Cotton hose	do	do	850	850
Flax	Imported	do	70	78
Linen	Exported	do	450	475
Silk, raw	Imported	do	4, 400	4, 800
Wool	do	do	270	310
Woolen goods	Exported	do	550	600
Aniline, etc.	do	do	750	690

The uncertainties and difficulties attending such an estimate of average prices are obvious. The degree of confidence felt in the accuracy of the stated balance of trade depends in Germany, as it does in France, on the trustworthiness of the statistics of prices. If the average prices for important articles are taken to be higher or lower by a few percents, the balance of trade may be made to appear favorable or unfavorable. Absolute accuracy is, of course, impossible, and it may be a question whether the British Trade Statistics do not use a better method. Their method consists in obtaining statements from business men themselves, of the value of the imported and exported commodities; from these statements the average prices of the different classes of goods are secured by calculation from the totals of the declared values. But it is certain that the estimates for the German trade have been made with great thoroughness and care. They are, therefore, well adapted for securing comparative statements of the general level of prices—statements which, it is true, apply primarily to Germany, but are not likely to vary much from those of the world's trade.

The Imperial Statistical Bureau has done much to render such comparisons easy. It has given for each year the total value of the exports and imports, not only for that year, but also the value at the prices of the previous year. On this method, regard is paid not only to the changes in individual articles, but also to the greatly varying importance of one commodity as compared with another.

Marks.

The total of all the commodities imported into Germany in the year 1886 was, on the prices of that year	2,888,398,000
The value of the same commodities at the prices of the year 1885 would have been	2,899,641,000

The difference between the two sums is..... 11,243,000

This indicates that the prices of 1886 were lower than those of 1885 by 0.26 per cent.

Marks.

The total value of the exports in 1886 was, at the prices of that year ..	2,985,553,000
The value of the exports at the prices of 1885 would have been.....	3,059,694,000

Difference 74,141,000

This indicates a fall in prices of 2.42 per cent.

In general, considering both exports and imports, we might conclude that the level of prices in Germany in 1886 had been lower than in 1885 by 1.40 per cent.

It will be of interest to present the same comparison for earlier years, based on the same materials and prepared on the same methods. The publications of the Imperial Statistical Bureau enables us to make such a comparison for the years since 1882.

The value of the total exports and imports of Germany, as derived from average prices estimated for each year, and the total value of those exports and imports as derived from the estimated prices of each preceding year, were as follows: *

	1882.		Difference b e - tween prices of 1882 and 1881.	1883.		Difference b e - tween prices of 1883 and 1882.
	By the prices of 1882.	By the prices of 1881.		By the prices of 1883.	By the prices of 1882.	
Imports	<i>Marks.</i> 3,164,687,000	<i>Marks.</i> 3,171,149,000	<i>Per ct.</i> - 0.20	<i>Marks.</i> 3,290,896,000	<i>Marks.</i> 3,342,122,000	<i>Per ct.</i> - 1.58
Exports	3,244,721,000	3,221,493,000	+ 0.72	3,335,000,000	3,410,856,000	- 2.22
	1884.		Difference b e - tween prices of 1884 and 1883.	1885.		Difference b e - tween prices of 1885 and 1884.
	By the prices of 1884.	By the prices of 1883.		By the prices of 1885.	By the prices of 1884.	
Imports	<i>Marks.</i> 3,284,923,000	<i>Marks.</i> 3,450,725,000	- 5.05	<i>Marks.</i> 2,944,431,000	<i>Marks.</i> 3,202,438,000	- 8.05
Exports	3,269,401,000	3,486,841,000	- 6.22	2,860,257,000	3,093,282,000	- 7.58

If we combine now the prices of exports and of imports, and take the mean between them, we get the following changes in prices:

	Per cent
1882 against 1881—a rise of.....	0.26
1883 against 1882—a fall of.....	1.87
1884 against 1883—a fall of.....	5.63
1885 against 1884—a fall of.....	7.79
1886 against 1885—a fall of.....	1.40

We see here a continued fall in general prices since 1883, which has taken place, however, at a slackened rate during last year as compared with the two previous years.

* In 1885 and 1886 the exports and imports of gold and silver, in bullion and coin, are excluded from the figures.

II.

The preceding paragraphs considered changes in the general level of prices in the years from 1882 to 1886, as indicated by the statements of the Imperial Statistical Bureau in regard to the foreign trade of Germany. We now present the promised statement based on the average prices ascertained by the Hamburg Bureau of Statistics. They are prepared on the same method, and present the same sort of index numbers, as the tables printed in our Materials for the years from 1847 to 1885.

We refer to the Materials for a description of the sources and the method on which these figures rest. The space here at our disposal does not permit us to present separately the prices of each of the hundred articles or to make comparisons with each preceding year.

Articles.	1847-'50.		1871-'75.		1885.		1886.	
	Per 100 kilos.	Index. No.	Per 100 kilos.	Index. No.	Per 100 kilos.	Index. No.	Per 100 kilos.	Index. No.
	<i>Marks.</i>		<i>Marks.</i>		<i>Marks.</i>		<i>Marks.</i>	
Wheat.....	19.44	100.00	23.72	122.02	15.83	78.86	15.06	77.47
Rye.....	12.24	100.00	17.56	143.46	12.21	99.75	11.05	90.28
Corn and potato spirit.....	81.57	100.00	43.40	137.79	83.23	105.26	24.07	76.24
Hops.....	99.76	100.00	304.68	339.44	218.11	242.99	191.49	213.84
Raw sugar.....	45.66	100.00	54.78	119.97	26.59	58.23	24.04	52.65
I.—Agricultural products, (20, including the 5 preceding).....		100.00		144.90		110.75		101.31
Beef.....	0.72	100.00	1.15	159.73	1.08	150.00	1.08	150.00
Milk.....	0.07	100.00	0.12	171.43	0.12	171.43	0.11	157.14
Butter.....	1.20	100.00	2.26	188.88	2.12	176.67	2.01	167.50
Leather.....	263.88	100.00	342.44	130.02	330.26	125.89	336.53	127.77
Herrings.....	20.25	100.00	30.75	149.85	29.29	144.64	26.58	131.26
II.—Meat and fish products, (22, including the 5 preceding).....		100.00		154.57		140.45		133.53
Raisins.....	42.72	100.00	58.14	136.10	* 51.02	119.43	47.25	110.60
Currants.....	47.94	100.00	44.86	92.53	37.43	78.10	43.00	89.70
Palm oil.....	105.90	100.00	98.26	92.79	92.52	87.87	86.65	81.82
French wine.....	27.60	100.00	61.26	221.93	70.41	255.11	73.25	265.40
III.—Southern products, (7, including the 4 preceding).....		100.00		131.50		123.78		122.44
Coffee.....	74.16	100.00	160.42	216.82	91.20	122.98	99.49	134.16
Cocoa.....	64.86	100.00	101.72	156.83	160.14	246.90	137.78	212.43
Tea.....	288.96	100.00	282.74	97.85	206.47	71.45	203.47	70.41
Pepper.....	55.08	100.00	126.52	229.70	152.50	276.87	159.23	289.09
Rice.....	83.66	100.00	21.85	64.11	17.87	51.60	16.87	48.63
IV.—Tropical products, (14, including the 5 preceding).....		100.00		130.72		116.39		115.44
Coal.....	15.73	100.00	20.65	131.28	12.31	78.26	11.86	75.52
Pig-iron.....	7.44	100.00	10.52	141.40	5.14	69.09	4.77	64.11
Steel.....	53.82	100.00	53.30	99.03	34.41	63.94	31.83	58.21
Zinc.....	81.08	100.00	46.34	149.10	25.14	80.89	27.28	87.77
Copper.....	171.96	100.00	179.60	104.44	110.92	64.50	103.52	60.08
Salt.....	4.50	100.00	3.16	70.22	1.74	38.67	1.62	36.00
V.—Minerals and metals, (14, including the 6 preceding).....		100.00		116.90		74.23		70.52
Cotton.....	111.36	100.00	149.58	134.32	102.42	91.97	96.46	86.62
Wool.....	360.24	100.00	334.24	93.78	202.48	56.21	187.85	52.01
Flax.....	94.80	100.00	123.12	129.87	148.20	156.33	132.34	139.60
Silk.....	3,863.64	100.00	4,335.94	112.22	2,902.70	75.13	2,686.13	69.52
VI.—Textile materials (7, including the 4 preceding).....		100.00		117.17		95.89		89.76
VII.—Miscellaneous, 11 articles (guano, India-rubber, gutta-percha, rosin, tar, soda, etc.).....		100.00		114.98		81.35		78.75

Glancing over the 29 articles and classes of articles, we find that the prices of 1886 were higher than those of the period 1847-'50, when the new supplies of gold had not yet been discovered, for the following articles: Hops, meat, milk, butter, leather, herrings, raisins, wine, coffee, cocoa, paper, flax. On the other hand, prices are lower for wheat, rye, spirits, sugar, currants, palm-oil, tea, rice, salt, coal, iron, steel, copper, zinc, cotton, wool, steel.

For agricultural products, as a whole (Group I), the prices of 1886 are about the same as those of 1847-'50, there being a rise of only 1.31 per cent. For animal products (Group II) there is a rise of 33.53 per cent., for southern articles (Group III) a rise 22.44 per cent., and for tropical articles (Group IV) a rise of 15.45 per cent. On the other hand, the tables indicate that the prices of 1886 were lower than those of 1847-'50, as follows: For mineral metals (Group V), by 29.48 per cent.; for textile materials (Group VI), by 10.24 per cent.; and for miscellaneous articles (Group VII), by 21.25 per cent.

Taking the whole 100 articles together, we find that the general level of prices in 1886 was higher than in 1847-'50 by 4.96 per cent.

The case is very different if we compare the average prices of 1886 with those of the period 1871-'75. Here we find that of the 29 articles mentioned only 4 are higher in price: wine, cocoa, pepper, and flax. All others have fallen in price, and some have fallen very much.

This becomes plain if we compare the prices of different groups in 1871-'75 and in 1886. Taking 100 to indicate the prices of 1871-'75, we find that a fall in prices had taken place, as follows:

	Per cent.
GROUP I.—Agricultural products	31
GROUP II.—Animal products	23
GROUP III.—Southern products	7
GROUP IV.—Tropical products	12
GROUP V.—Minerals and metals	40
GROUP VI.—Textile materials	24
GROUP VII.—Miscellaneous products	32

For all the 100 articles the comparative prices show a fall in 1886, compared to 1871-'75, of 22 per cent.

If we make a similar comparison with the year immediately preceding, we find that the figures of the Hamburg Bureau of Statistics indicate that the prices of 1886 as compared with those of 1885 show a further fall of 4 per cent.

No decided opinion can be expressed as to whether the figures for the year 1887, when completed, will show at last a rise in the general level of prices.

CHARTS
ON THE
SILVER QUESTION,

PREPARED ON THE BASIS OF THE

MATERIALS

TOWARD THE ELUCIDATION OF THE ECONOMIC CONDITIONS AFFECTING
THE PRECIOUS METALS, ETC.,

COLLECTED BY

AD. SOETBEER.

- I. AVERAGE ANNUAL PRODUCTION OF THE PRECIOUS METALS, 1493-1885.
- II, III. PRODUCTION OF THE PRECIOUS METALS, 1493-1885, BY PERIODS.
- IV, V. PRODUCTION OF THE PRECIOUS METALS, 1493-1885, BY COUNTRIES.
- VI. FLOW OF THE PRECIOUS METALS TO BRITISH INDIA, 1851-1885.
- VII. RATIO OF SILVER TO GOLD, 1501-1885.
- VIII. MOVEMENT OF PRICES, 1851-1885.

REMARKS ON THE CHARTS ON THE SILVER QUESTION.

The charts on the silver question are meant to give the means of grasping readily the results reached in the second edition of our "Materials toward the elucidation of the economic conditions affecting the precious metals, etc."

The needful explanations are printed on the chart, and the data on which they are based may be found in the Materials. But on certain points some special explanation may be of service.

As is explained in the preface and introduction to the second edition of the Materials, the value of silver is there reckoned, in terms of (gold) German marks, not on the old plan of assuming a permanent ratio of $15\frac{1}{2}$ to 1, but according to the actual ratio at different periods since 1493. The same method of calculation is used for the charts. The statements of the value of the silver product, and of its proportion to the value of the gold product, therefore, vary from former statements based on the old method. The value of the annual average product of silver from 1881 to 1885 is ascertained by us to be 428,760,000 marks (for 2,862,000 kilograms) or 50.7 per cent. of the total value of the product of the precious metals. On the old method, the value would be 515,160,000 marks, or 55.3 per cent. of the total value.

We repeat, again, the qualification that the figures of the production of the precious metals represent only approximate estimates.

We add to the statement of the ratio of gold to silver, the figures of the remarkable fluctuations in the price of silver which took place during the present year (1886) and caused much excitement in the silver trade. The London price of silver per ounce standard fine ($\frac{37}{100}$) was :

Month.	Price.	Month.	Price.
	d.		d.
January	46 $\frac{1}{2}$ to 46 $\frac{3}{4}$	June	44 $\frac{1}{2}$ to 45
February	46 $\frac{1}{2}$ to 46 $\frac{3}{4}$	July	42 $\frac{1}{2}$ to 44 $\frac{1}{2}$
March	41 $\frac{1}{2}$ to 46 $\frac{3}{4}$	August	43 to 42 $\frac{1}{2}$
April	46 $\frac{1}{2}$ to 46 $\frac{3}{4}$	September	42 $\frac{1}{2}$ to 45
May	45 to 45 $\frac{1}{2}$		

The price of 42 pence (or 124 marks per kilogram of silver) corresponds to a ratio of 22.45 kilograms silver to 1 kilogram gold.

In the chart showing the flow of precious metals to India, data are wanting for the value of rupees from 1859 to 1861. This is the result of the Indian Government's having paid in those years its debts in England from the proceeds of loans contracted there; in consequence hardly any council bills were sold. It should be stated, also, that in 1855 the net imports of silver to British India were only 296,000 rupees, and that in 1879 there was a net export of gold of 8,962,000 rupees. The years

for this chart are the Indian fiscal years, ending 31st March of the years designated.

The chart showing the movement of prices (in regard to whose calculation we refer to the explanations in the Materials) is based on data from the Hamburg Bureau of Trade Statistics and from the London Economist. We have no figures from the Economist for January 1, of the years 1852-'57, and none for July 1 of the years 1852, 1854-'56, and 1858-'63. The remarkably high index numbers reached by that journal for 1864 are (the index numbers for 1845-'50 being 100 or 2,200), 172.14, or 3,787, for January 1, and 172.37, or 3,792, for July 1.

The following 114 articles were embraced in the calculations of the Hamburg Bureau.

I.—*Agricultural and related products* (20): Wheat, wheat flour, rye, rye flour, oats, barley, malt, buckwheat, pease, beans, potatoes, hops, clover-seed, rape-seed, rapeseed-oil, linseed-oil, oil-cake, raw sugar, refined sugar, spirits from corn and potatoes.

II.—*Animal and fish products* (22): Beef, veal, mutton, pork, milk, butter, cheese, tallow, lard, hides, calf-skins, leather, horsehair, bristles, feathers, bones, ox-horns, mucilage, eggs, herrings, cured fish, fish-oil.

III.—*Southern products* (7).

IV.—*Tropical products, exclusive of cotton* (19).

V.—*Minerals and metals* (14): Coal, pig-iron, bar-iron, steel, lead, zinc, tin, copper, quicksilver, sulphur (raw), Chili saltpeter (raw), salt, lime, cement.

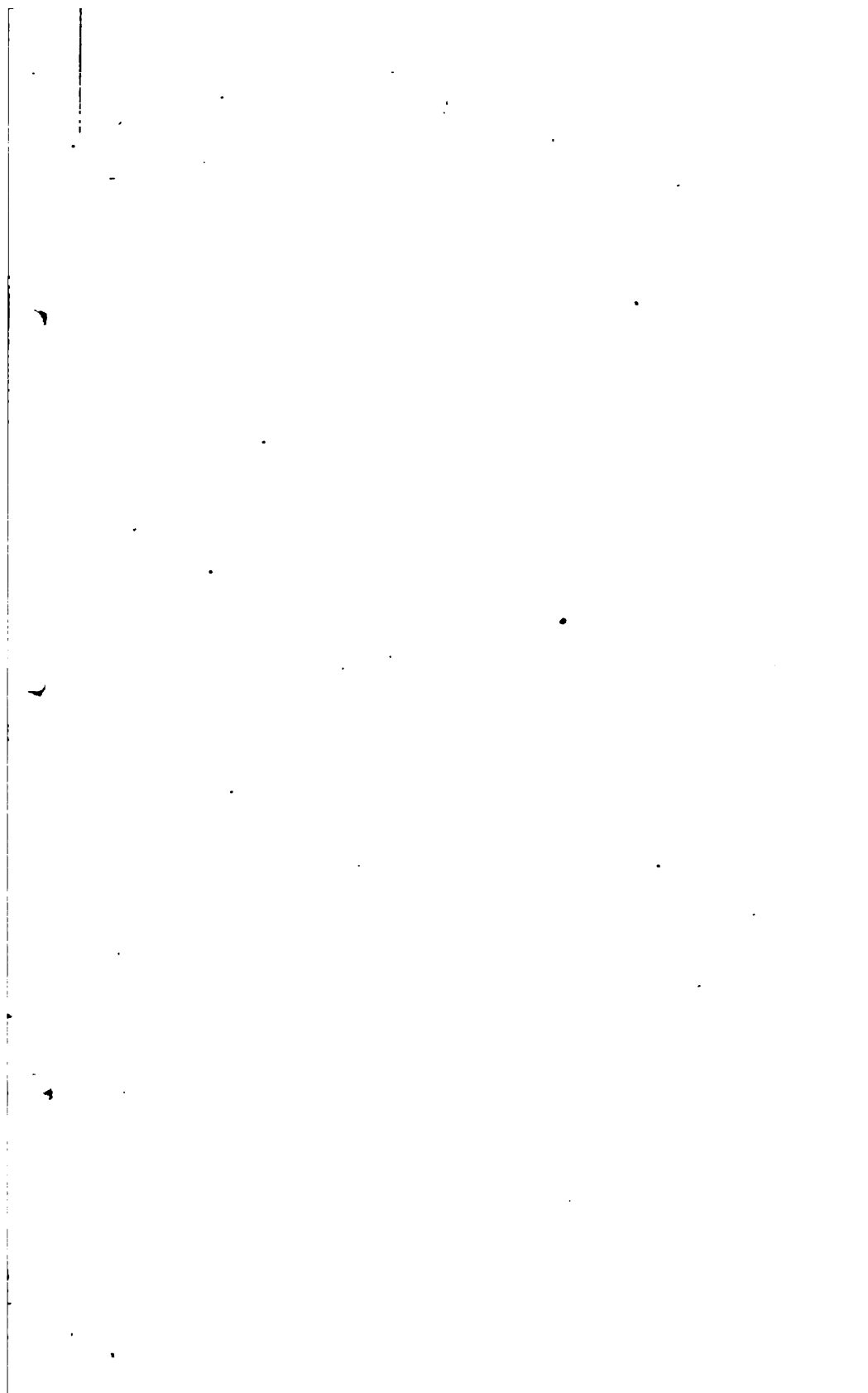
VI.—*Textile materials* (7).

VII.—*Miscellaneous* (11).

VIII.—*British manufactures, articles of export* (14).

The London Economist considers the following 22 articles: Coffee, sugar, tea, tobacco, wheat, fresh meat, cotton, silk, flax and hemp, wool, indigo, oils, timber, tallow, leather, copper, iron, lead, zinc, Pernambuco cotton, cotton yarn, cotton cloth.

Finally, we may mention that the chart refers only to wholesale prices. But the purchasing power of money is not shown by wholesale prices alone. Retail prices, rents, the wages of physical and mental labor, and, looking at the matter from another point view, the cost of living in the manner proper to one's station in life—all are to be considered. On this point also we must refer for further explanation to the Materials.



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Production of the Precious Metals, 1493-1886, by Countries.

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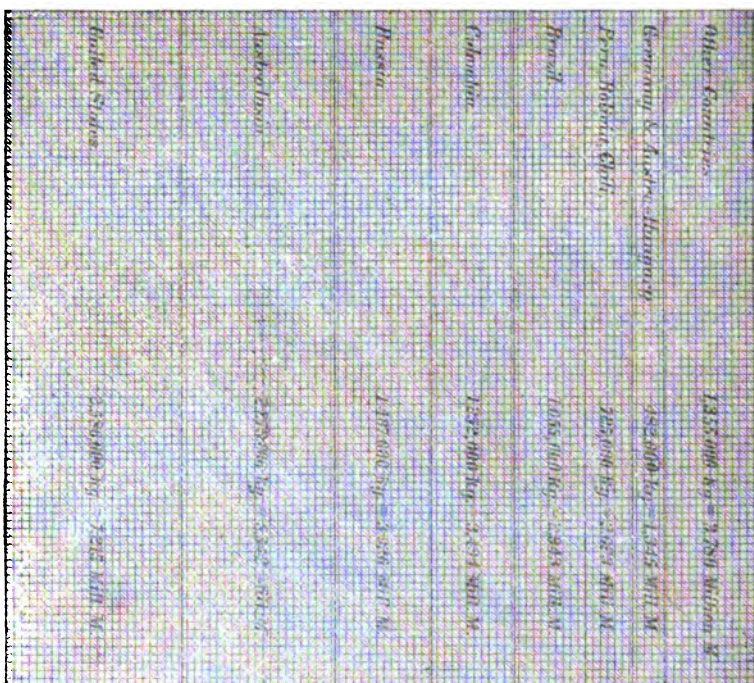
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Production of the Precious Metals, 1493-1886, by Countries.

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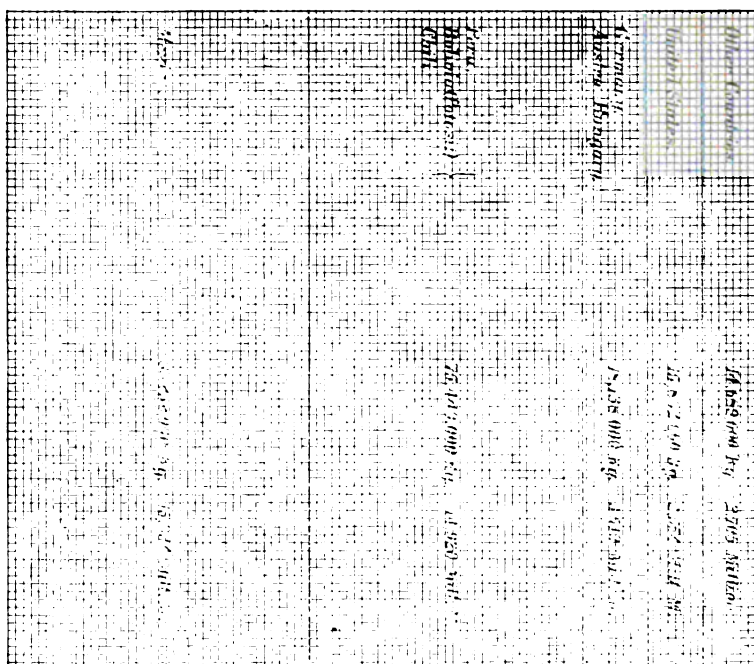
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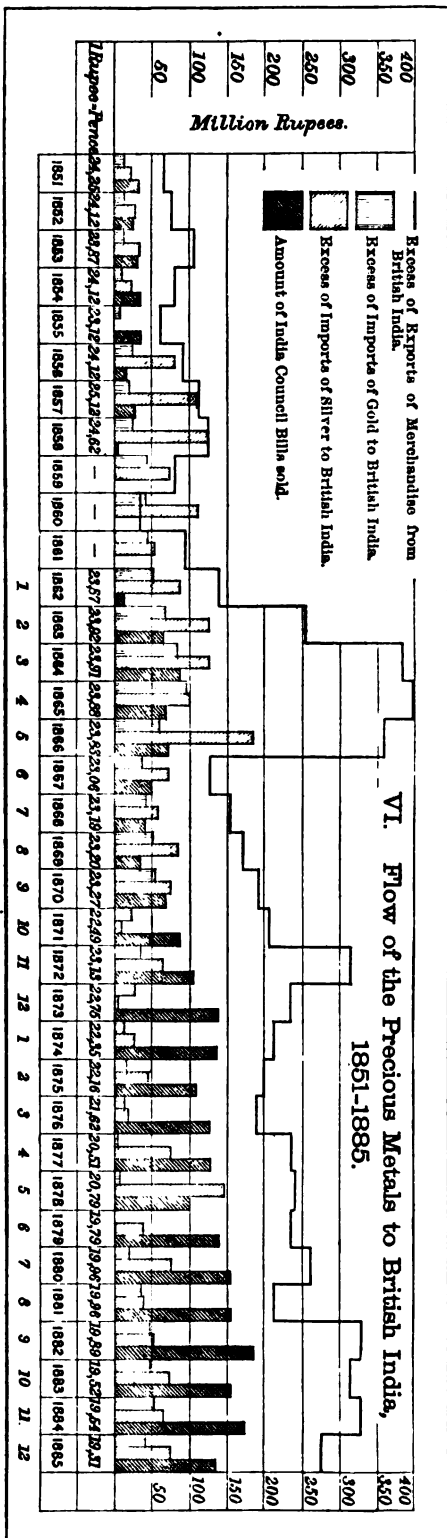
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One cm. = 2,500,000 kg. A space 1 mm. high and 829 mm. wide = 2,075,000 kg.



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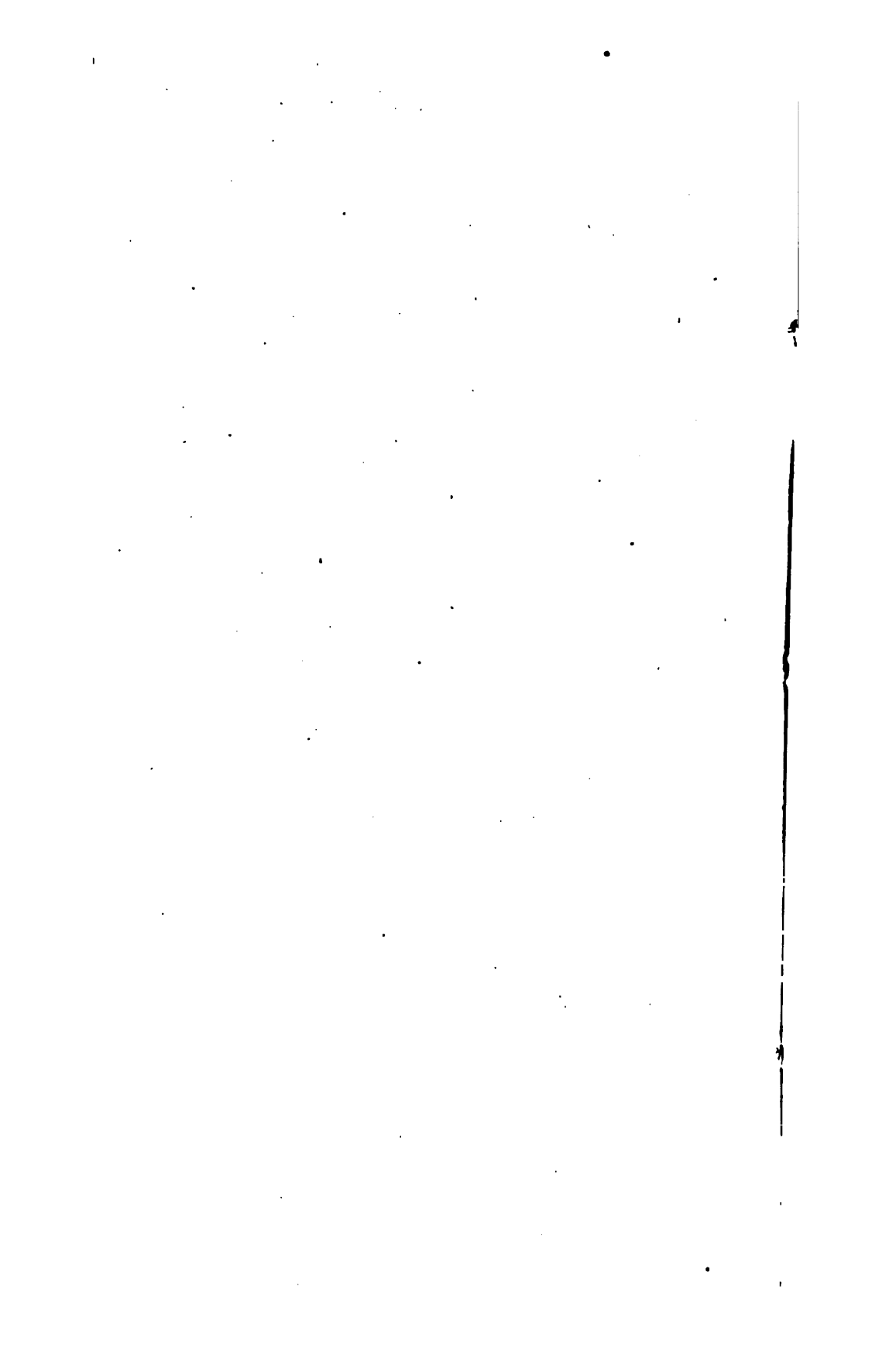
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Ratio of Silver

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15,36 15,38 15,39 15,41 15,43

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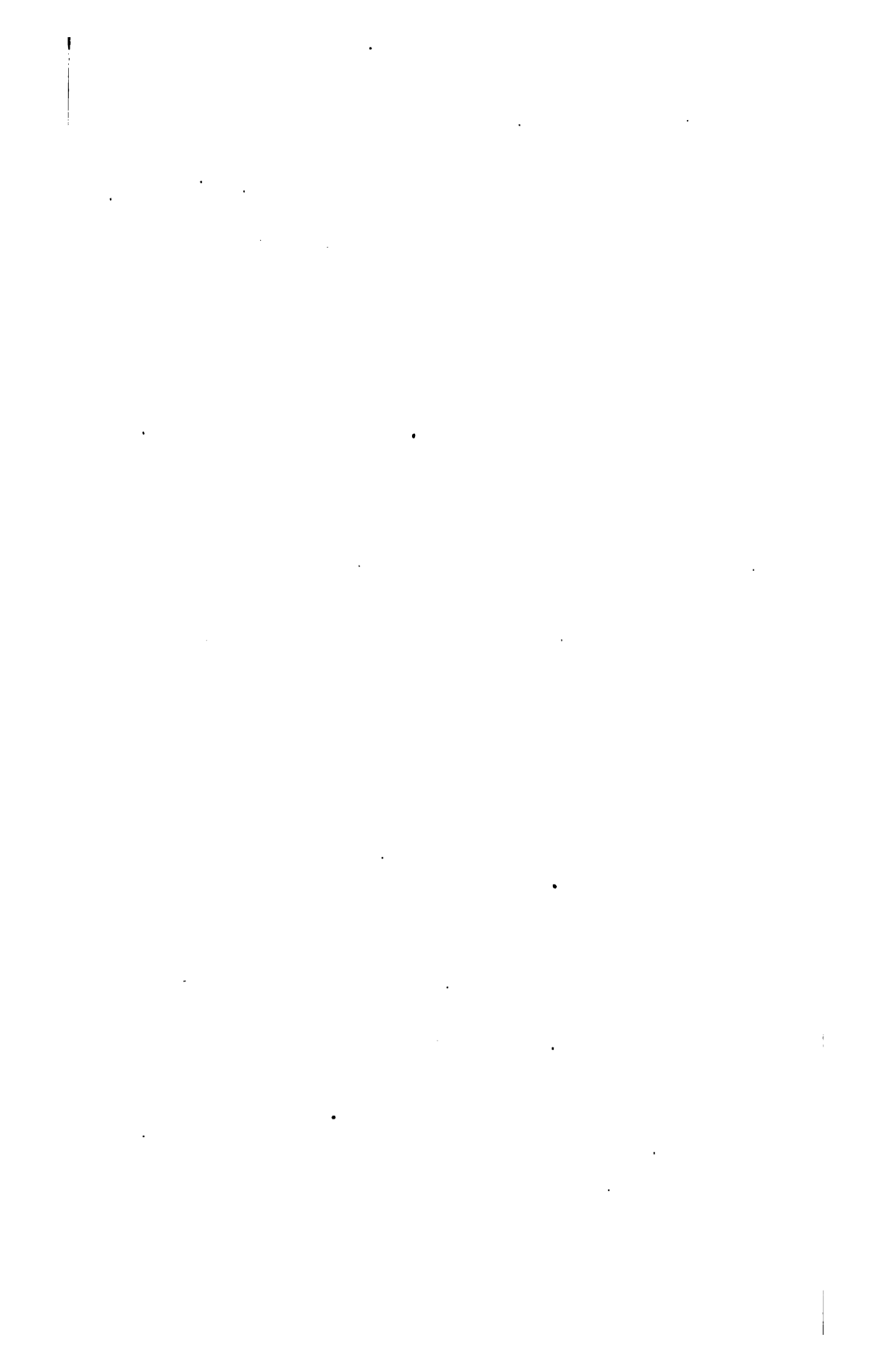
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